What Works for Africa's Poorest Children

Praise for this book

'While the world agrees on the priority of achieving the SDGs, there is much too little known on the practicalities of how to do so, especially in challenging situations. This immensely valuable and rich collection is grounded in perspectives and experiences in a range of African countries. By exploring what has worked for children and what has not - in education, nutrition and health - it is an invaluable guide to policies to improve children's lives and help them realise their potential.'

Professor Frances Stewart, Development Economics, University of Oxford

'Recent advances in the analysis of poverty highlight its complex and multidimensional nature. This insightful book applies innovative thinking and cutting-edge methodologies to the challenge of understanding and tackling child poverty in Africa. Contributions from countries across the continent shed fresh light on the precarious situation of African children, on violations of their rights, and on new approaches to addressing their unmet needs. This book is both sobering and uplifting. The contributors show us what needs to be done, but also what can be done, and how to do it.'

Stephen Devereux, Co-Director, Centre for Social Protection, Institute of Development Studies (IDS), Brighton, UK

'Lawson's thirty years of experience and dedication in understanding and providing appropriate policy advice for extreme poverty and vulnerability in SSA, result in yet another enlightening volume of what works for Africa's poorest.'

Susanna Gable, Chief Economist, SIDA

'Reducing child poverty requires a broad variety of policies, based on a thorough analysis of the origins and causes of many different situations. Protection of children, addressing violations of their rights, meeting their basic needs and carving paths towards sustainable living conditions in a caring society demand multidisciplinary and comprehensive policies. General approaches which do not take into consideration the specific circumstances of children in different countries and regions and their different religious, cultural or ethnic backgrounds will not be effective. Family backgrounds matter. So do power relations within communities as well as different rural and urban living experiences. In this book wisdom gained in different African countries has been brought together. The volume combines new thinking with lessons learned in different fields, such as nutrition, health, sanitation and education. It is a must read, both for students of poverty and development and as well as for politicians, policy makers, experts and field practitioners.'

Jan Pronk, former Netherlands Minister for Development Cooperation

What Works for Africa's Poorest Children

From measurement to action

Edited by
David Lawson, Diego Angemi, and Ibrahim Kasirye

Practical
ACTION
PUBLISHING

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Preface

Despite advances in economic growth and significant achievements in both development and humanitarian outcomes, millions of children across the African continent remain trapped in poverty. This has stark implications, particularly considering the COVID-19 pandemic, both for the future opportunities of children, and towards achieving a more equitable and inclusive society. A child experiencing poverty and multiple deprivations, even for a short duration, can suffer long-lasting consequences stretching into adulthood. Such deprivations can impair opportunities and prospects later in life, and continue the cycle of poverty, further entrenching inequality.

Every child has the right to grow to his or her full potential. Moreover, reducing child poverty in all its dimensions by 2030 is central to meeting the Sustainable Development Goals (SDGs) and achieving sustainable socio-economic transformation. This is especially the case in sub-Saharan Africa, where children account for the largest and fastest growing share of the population, but where almost 50 per cent of them live in extreme poverty.

While the case is clear for investing in children, the pressing question for policymakers and development practitioners is determining *What Works for Africa's Poorest Children*. This in turn would help identify where to invest increasingly limited resources. Fortunately, there are a number of interventions that have already proven effective in reducing child poverty and deprivation. The big task for policymakers is to shift this body of evidence into practical action. To get closer to this goal, the Government of Uganda through the Economic Policy Research Centre, UNICEF Uganda, the Global Development Institute at the University of Manchester, and the Nordic Africa Institute brought together researchers, policy, and civil society stakeholders for an international conference to present clear and actionable policy recommendations to tackle poverty and deprivation at scale.

The purpose of this book is to continue the process of identifying and consolidating the policies and programmes that are most effective in supporting Africa's poorest and most vulnerable children. Building on the aforementioned conference, and the two prior volumes of *What Works for the Poorest*, this book represents a bold effort to further highlight the most effective interventions supporting Africa's poorest and most vulnerable children, while elaborating on the key features underpinning their documented success. Through a set of carefully selected and well-integrated contributions, this publication provides cutting edge, real examples of how we can identify child poverty and deprivation before providing practical actions, programmes, and policy interventions that have made a difference in the lives of Africa's poorest children.

It is our most sincere hope that the findings and policy recommendations provided in this book not only help raise the awareness of key stakeholders about the need to prioritize children in national strategies, but also provide clear insights with regard to tangible and actionable interventions aimed at alleviating the burden of child poverty and deprivation.

Sarah Ssewanyana
Executive Director, Economic Policy Research Centre
Doreen Mulenga
Country Representative, UNICEF Uganda
Iina Soiri
Director, Nordic Africa Institute
David Hulme
Executive Director, University of Manchester

Foreword

2019 marked the 30th anniversary of the Convention on the Rights of the Child (CRC), the most widely ratified of the United Nations human rights conventions. Instruments such as the CRC, and Africa's own Charter on the Rights and Welfare of the Child, provide important tools for advocacy and accountability in ensuring states, communities, and citizens share responsibility and support the vision of progress for children. Anniversaries create moments to reflect on progress and achievements, as well as gaps, failures, and new challenges.

The 1989 Convention was agreed at the end of a decade in which recession and structural adjustment policies had blighted the lives of children and their families across the African continent. The effects were documented in a landmark publication by UNICEF[1] that asked how a country's economy could be strengthened 'if its children, the human capital of the future, were being weakened by cutbacks in expenditures on nutrition and education'.[2] Subsequent decades have seen major shifts in policy and action, and much progress, but globally we remain far from realizing the rights of every child.

Indicators and reports tell us how much progress is being made – in declining infant mortality, rising educational enrolment, and improved access to health care, in children's access to new technologies, their participation, and subjective well-being. But the media also shows us how far we have to go in ensuring that every child is protected and has access to the minimal conditions for a good life; it depicts the fragility of gains for millions affected by climate, disasters, disease, conflict, and poverty-induced struggles.

The poverty agenda of the 1990s, responding to the devastation of lives during the previous decade, ushered in a global commitment to reduce poverty and realize rights to health and education through the Millennium Development Goals (MDGs). Uneven progress in realizing the MDGs underpinned a commitment to 'leave no-one behind' in the next generation Sustainable Development Goals (SDGs). As the SDGs were being negotiated, African governments also put in place their own ambitious, long-term vision for the continent – Agenda 2063 – to ensure it takes advantage of the opportunities offered by Africa's own resources, and particularly its people. Africa is a young continent with the fastest growing population of any region: what happens to the children and youth of Africa today affects our shared futures within and beyond the continent. Achieving the SDGs is only possible if Africa's children are healthy, educated, and prepared for their future.

The new development agendas also respond to complex or 'wicked' problems of our times which demand transformative approaches and solutions.

In responding to complexity, identifying 'what works' cannot only be about disciplinary rigour and quantitative impact evaluation, nor micro-solutions for one village or community. Nor can we be satisfied with measuring and monitoring progress. We require new approaches to understand what needs to be done differently, which requires crossing disciplinary divides; bringing together researchers, practitioners, and communities to seek solutions jointly; and generating scalable and system-wide solutions that can create transformative change across generations.

In searching for answers to the question of 'what works' for children, and particularly for Africa's poorest children, this valuable collection speaks to many of these issues. Ambitious in scope and coverage, it brings together research on quantitative measures and data for monitoring progress; the policies and interventions, particularly social policies, that directly reach poor children and ensure investments are made in their futures; and the governance mechanisms and financing arrangements essential to ensure that a child's needs are met and her rights protected. It draws on empirical experience and rich contextual detail from several African countries, maintaining a focus on reaching the poorest and most vulnerable child, without losing sight of the broader macro and structural forces that may drive or hinder change. And it represents a genuine collaboration between African and international scholars and practitioners, from academic, policy, and operational organizations, who combine in-depth knowledge of context with methodological and academic rigour, and the capacity to look comparatively to draw out lessons about what can work.

The result is an immensely valuable resource for anyone committed to improving the lives of Africa's children today, and thus for creating a better future in Africa and for all of us.

Sarah Cook

Sarah Cook is currently Director of the Institute for Global Development, the University of New South Wales, Sydney. Until recently she was the Director of UNICEF's Office of Research, the Innocenti Research Center in Florence, Italy. Prior to that she was Director of the United Nations Research Institute for Social Development (UNRISD) in Geneva. In these roles she has been committed to exploring how research contributes to social change and transformative development outcomes.

Notes

1. Cornia, G.A., Jolly, R., and Stewart, F. (eds) (1987) *Adjustment with a Human Face. Volume 1, Protecting the Vulnerable and Promoting Growth*, Oxford: Clarendon Press.
2. Jolly, R. (2011) *UNICEF, Economists and Economic Policy: Bringing Children into Development Strategies* [pdf], UNICEF Social and Economic Policy Working Briefs, October <http://www.unicef.org/socialpolicy/files/Jolly_Policy-Brief_October2011_Final.pdf> [accessed 23 August 2016].

Acknowledgements

About the Editors

David Lawson is Senior Researcher at the Nordic Africa Institute, Uppsala, Adjunct Professor at the University of Helsinki, Visiting Professor at the University of International Business and Economics, Beijing, and Associate Professor Development Economics and Public Policy at the University of Manchester. He has 25 years of sub-Saharan Africa public policy experience, particularly in relation to policy implementation and research on extreme poverty, having consulted and advised extensively for the DFID, OECD, UNICEF, World Bank, and as resident economic adviser in Ethiopia, Lesotho, and Uganda. He has published widely with more than 100 publications, including in leading peer-reviewed journals and six books that include *What Works for Africa's Poorest* (Practical Action Publishing, 2017), *What Works for The Poorest: Poverty Reduction Programmes for the Ultra Poor* (Practical Action Publishing, 2010), and *Gender, Poverty and Access to Justice: Policy Implementation in SSA* (Routledge, 2020).

Diego Angemi is the Chief of Social Policy and Advocacy at UNICEF Uganda. He is an economist with over 15 years of diverse experience in research and policy analysis. His areas of expertise include poverty and vulnerability analysis, and the design and implementation of national development plans, in addition to various aspects of public financial management (i.e. budget formulation, execution, monitoring, and reporting) and aid effectiveness.

Ibrahim Kasirye is the Director of Research at the Economic Policy Research Centre (EPRC), Uganda.

CHAPTER 1

What works for the poorest? Perspectives on child vulnerabilities and deprivation

Peter Agamile, Su Lyn Corcoran and David Lawson

Abstract

This chapter presents and contextualizes the volume and provides a backdrop for the chapters that follow. In line with the What Works for the Poorest *(Lawson et., al 2010, 2017) series, we continue our aim of advancing the identification and measurement of the very poorest and vulnerable in sub-Saharan Africa (SSA), whilst highlighting some of the programmes, and their design components, that seem to 'work'. This volume focuses exclusively on children and contains unique methodological approaches in order to assist the most vulnerable and poorest children in SSA issues of heightened importance given the COVID-19 pandemic. As has become customary in the series, we complement the volume with both cross SSA and individual country experiences. We hope to: 1) raise awareness of the problems faced by the poorest and most vulnerable children in Africa; 2) encourage policy makers and development practitioners to identify strategic interventions to move from the measurement of child poverty in all of its dimensions to action; and 3) provide practical examples from a number of African countries that have succeeded in alleviating the burden of poverty and deprivation on children and other vulnerable groups.*

Introduction: Who are the poorest and most vulnerable children in Africa?

> *Every child is born with the same inalienable right to a healthy start in life, an education and a safe, secure childhood – all the basic opportunities that translate into a productive and prosperous adulthood. But around the world, millions of children are denied their rights and deprived of everything they need to grow up healthy and strong – because of their place of birth or their family of origin; because of their race, ethnicity or gender; or because they live in poverty or with a disability (UNICEF, 2016: 1).*

When we started the *What Works for Africa's Poorest* (Lawson et al., 2010) series, there were relatively few books focusing on extreme and chronic poverty. Over the last decade, methodological advancements have been made in identifying the poorest and most vulnerable, and we feel that this volume continues this advancement and provides cutting edge approaches in our transition towards the appropriate identification, measurement, and attainment of the Sustainable Development Goals (SDGs).

In the last volume of *What Works for Africa's Poorest* (Lawson et al., 2017), we reflected on the relatively unparalleled prior two decades of economic growth, and the dramatic reductions in income/consumption (and multidimensional) poverty (e.g. Gertz and Chandy, 2011). This was a cause for optimism but, at the same time, we noted that the benefits of this contemporary growth had been unevenly distributed. The situation has been exacerbated by COVID-19 and the shift in many countries' development policies from the previous focus on the investment of public resources to support rural livelihoods (Ellis and Bahiigwa, 2003; Ellis and Freeman, 2004), to a continued focus on investment in structural development of the economy to spur economic growth benefits that are assumed to trickle down to the poor (Timmer and Akkus, 2008). A reverse shift has been supported by an increasing number of empirical studies, such as Collier and Dercon (2014) who argue that national development plans will need to be re-oriented towards more 'structural transformation' in order to achieve better results in poverty alleviation. With generally low human capital formation and limited asset holdings, the poor are likely to face many challenges before benefiting from structural transformation to the economy (Zimmerman, 2000). These challenges will only be exacerbated by the COVID-19 pandemic, and it will therefore take deliberate and dramatic efforts to successfully extend current benefits to the greater proportion of the citizens in each country.

In addition to the heterogeneity in sharing the benefits of economic growth in recent decades, climate, health and conflict shocks are likely to pose major threats to the welfare of households and children, in the future. In the short-run, the impact of health related shocks on households from disease and virus, such as COVID-19, has the potential to impact on children lives through a number of transmissions mechanisms – from quarantine efforts such as school closures that have the potential to disrupt children's routines (see Box 1.1 for impact examples) and support systems to direct welfare effects of limited job market opportunities for older adolescents (Van Lancker and Parolin, 2020). According to a recent WHO-UNICEF-Lancet Commission report, climate change, conflict, and pervasive inequalities will pose serious threats to the welfare of children (Clark et al., 2020). The increased frequency and intensity of climate change-induced shocks affecting 'low-income' countries, particularly in the tropics, is increasingly threatening the welfare of millions of households. This is particularly true for the countries where the vast majority of the population live in rural areas practising smallholder agriculture with minimal or no use of improved inputs such as drought tolerant seeds, fertilizers, and irrigation technologies among others. Accordingly, any exposure to severe weather events results in substantial losses in agricultural production, increasing the precarity of farmers and their families. The impact of this can be significant given that 75 per cent of people living in poverty in low-income countries reside in rural areas (Heinemann et al., 2011).

Young people in sub-Saharan Africa (SSA) are disproportionately involved in and affected by conflict, which leads to many and varied development challenges, situations of displacement, intergenerational emergencies, and

structural inequalities that vary country by country (e.g. Boerma et al., 2019; Goodhand, 2001; Bodea and Elbadawi, 2008; Efevbera and Betancourt, 2016; Maxted, 2003; Slone and Mann, 2016; Yair and Miodownik, 2014). In recent years, the proliferation of conflict in the region, spreading to new territories and increasingly involving predominantly non-state actors, has had a serious negative impact on the welfare of affected households. In addition, conflict is increasingly becoming a major cause of food insecurity across SSA according to the United Nations 2018 interagency report, *The State of Food Security and Nutrition in the World* (FAO et al., 2018). Given that, within households, children usually bear the brunt of any household welfare losses through decline in health and missed education, for example (Abiona, 2017), this chain, if not broken, risks pushing many children and their households into an intergenerational poverty trap (Horrell et al., 2001; Bird, 2013).

However, it is reassuring to know that there is now growing global interest and efforts to address the endemic negative welfare suffered by children. For example, within the SDGs, there are 17 indicators specifically aimed at improving the welfare of children. These indicators aim to address endemic challenges such as: under-five mortality; neonatal mortality; early childhood development; stunting, wasting, or childhood obesity; and child labour, among others. In SSA, performance measured against these and other child welfare indicators is far from reaching global targets. For example, only eight countries (approximately 15 per cent of all African countries) have managed to reduce under-five mortality to less than or equal to 25 deaths per 1,000 live births, consistent with SDG 3.2 (Table 1.1). Relatedly, a global ranking of countries by child flourishing – calculated using indicators of children's survival, health, education, and nutrition – reveals that nine of the bottom ten countries are from Africa (WHO-UNICEF-Lancet Commission, 2020).

Transitional perspectives of vulnerable children

One of the ways in which children survive is to engage in child labour. UNICEF (2019) estimate that at least 29 per cent of children aged 5–17 years in SSA are engaged in some form of labour, which can manifest itself in many forms, from domestic care in the home, engagement in the informal economy or the provision of agriculture, to more hazardous types of work such as the sex trade. According to Hindman (2009), there are two views of child labour: the mainstream view of it as harmful and able to entrap children, their families, and communities in cycles of poverty and underdevelopment; and the view that we should support children to find decent work when it is essential for family and child survival. However, for the most vulnerable, this second view is not always an accessible reality and one solution to enabling sustainable futures for children is to provide access to education. However, children engaged in labour are at an increased likelihood of dropping out of school.

A UNESCO (2019) monitoring report shows that SSA has the highest proportion of school dropout of children and youth of primary, lower

Table 1.1 Incidence of under-five child mortality in Africa, 2000–2018

Country[1]	Mortality rate, under-five (per 1,000 live births)			Gap to SDG target[2]
	2000	2010	2018	
Libya	28	17	12	—
Seychelles	14	14	15	—
Mauritius	19	15	16	—
Tunisia	30	18	17	—
Cabo Verde	36	25	20	—
Egypt, Arab Rep.	47	29	21	—
Morocco	49	32	22	—
Algeria	40	27	24	—
Sao Tome and Principe	85	45	31	6
South Africa	74	53	34	9
Rwanda	183	64	35	10
Botswana	87	50	37	12
Namibia	77	48	40	15
Kenya	106	57	41	16
Eritrea	86	55	42	17
Senegal	132	66	44	19
Gabon	85	63	45	20
Zimbabwe	105	86	46	21
Uganda	148	77	46	21
Ghana	100	70	48	23
Malawi	173	88	50	25
Congo, Rep.	114	63	50	25
Tanzania	130	72	53	28
Madagascar	107	67	54	29
Eswatini	126	89	54	29
Ethiopia	142	83	55	30
Zambia	162	80	58	33
Gambia, The	115	77	58	33
Burundi	156	91	59	34
Djibouti	101	76	59	34
Sudan	104	76	61	36
Comoros	102	87	68	43
Togo	120	90	70	45
Liberia	187	97	71	46

(*Continues*)

Table 1.1 (*Continued*)

Country[1]	Mortality rate, under-five (per 1,000 live births)			Gap to SDG target[2]
	2000	*2010*	*2018*	
Mozambique	172	105	73	48
Mauritania	114	97	76	51
Cameroon	149	107	76	51
Burkina Faso	179	114	76	51
Angola	206	121	77	52
Côte d'Ivoire	145	107	81	56
Lesotho	118	100	81	56
Guinea-Bissau	175	114	82	57
Niger	226	123	84	59
Equatorial Guinea	157	112	85	60
Congo, Dem. Rep.	161	115	88	63
Benin	139	111	93	68
Mali	188	132	98	73
South Sudan	183	109	99	74
Guinea	166	117	101	76
Sierra Leone	234	163	105	80
Central African Republic	172	150	117	92
Chad	186	150	119	94
Nigeria	185	135	120	95
Somalia	172	157	122	97

Source: Authors' compilation based on World Development Indicators online database (World Bank)
[1]Countries ranked by 2018 mortality rate
[2]The proposed SDG target for child mortality aims to reduce under-five mortality to at least as low as 25 deaths per 1,000 live births by 2030

secondary, and upper secondary age in the world at 31.2 per cent – nearly twice the world average of 17.1 per cent. The chances of children dropping out of school are very high, and be accentuated by COVID-19 school closure policies, particularly for those coming from households that are poor or have been exposed to conflict or climatic shocks. As the frequency of climate change-induced shocks increases, and the protracted nature of conflict in the region results in long-term displacement, it can be expected that the number of children dropping out of school will potentially increase as damage to infrastructure, both homes and schools, as well as economic shocks result in families' inability to send their children to school. This presents a remarkable challenge to global efforts aimed at ensuring that all girls and boys complete free, equitable, inclusive, and good quality primary and secondary

education as outlined in SDG 4.1, especially when attempting to re-engage children with education after they have dropped out. As we see in Box 1.1, understanding 'street-connected' children's experiences and the impact on their identity formation is critical to understanding how to support their transitions (back) to school. Similar experiences of being out-of-school affect populations of young people who have been displaced for extended periods by conflict or disaster situations (Corcoran et al., 2020).

Dropping out of school can leave children with a deficit in terms of human capital, which can potentially place a limit on their future earnings. It also leaves them at greater risk of negative social situations such as child marriage, becoming street-connected, or being involved in crime. In many settings, young girls from poor households can be married off against their will or local legal provisions, to obtain resources for the family (Shomali and Lawson, 2020). According to UNICEF (2019), from 2012 to 2018 in SSA, 12 per cent of girls were married before the age of 15 years, which is more than twice the world average of 5 per cent. However, within SSA, there are very strong regional differences in the proportion of girls married before 15 years: from 9 per cent in East and Southern Africa, to 15 per cent in West and Central Africa. Similar trends are reported in empirical studies. For example, in a multi-country study of 31 countries in SSA, Koski et al. (2017) found that the high prevalence of girls who married before their 15th birthday had not changed in nearly 20 years, and actually increased in some instances. Relatedly de Groot et al. (2018) showed that in Ghana, 1 in 20 girls was married before her 15th birthday, and Yousefnajad and Lawson (2020) highlighted that, for Uganda, over the last 50 years the median age of women entering their first marriage was 17.9 years.

Box 1.1 Using transition experiences of street-connected young people in Kenya to inform the support provided when going (back) into education

Support is essential for young people starting school for the first time at an advanced age or returning to school after an extended period of time away from the classroom. Street-connected young people, who live and/or work in the interactional, usually urban, space known as the *street* have varying degrees of interaction with education. Some engage with street-life every evening after school or at weekends and holidays, others miss school one or two days a week, some attend non-formal education provided by non-governmental and community-based organizations, some live on the street full-time and attend school, and many do not access education at all. When they have been out-of-school for an extended period, having lived and worked on the street can imply benefits and challenges for young people's successful transition (back) into education. Such transitions, and the later transitions that take place between stages of an education system (e.g. from primary to secondary school), can provide opportunities for either establishing new identities or maintaining marginalized positions – and a learner's experience of the transition can affect their well-being (West et al., 2010). This box explores how the development of street-connected identities have long-term effects on a young person's ability to settle in to a new community after they leave the street – particularly a new learning environment and the potential impact it has on their later journey through education.

Background

Using life-story interviews as a methodological starting point (Goodson, 2013), and im-ages produced by the participants to enable a more detailed focus on particular aspects of their journeys away from the street (Thomson, 2009), the stories of transition for 53 young people leaving the street in Kenya were explored – focusing in particular on their first days/weeks/months in a new school (Corcoran, 2016). The young people's photo-graphs and drawings were central to image-elicitation interviews, or co-created during focus group activities, in which they related their reasons for creating the images and the wider story being represented (Harper, 1986). Having some autonomy over the research process, the participants were able to relate more personalized experiences of transition and explained the social context within which these transitions took place (Corcoran, 2014).

Street-connected identities

Street-connected young people experience varying levels of agency and a variety of situations, in which they develop and maintain relationships with and attachments to their families, home, street-connected communities, and the street itself (Thomas de Benitez, 2017). They may be in regular communication with their parents and extended families, have no contact with home and rely completely on the street for survival and support, or their situation represents a combination of these (Aptekar and Stoecklin, 2014). By referring to a young person as connected to the street, they are positioned at the centre of our thinking – rather than limiting their representation to 'specific types of location and a passivity of circumstance' (Thomas de Benitez, 2017) – acknowledging that their connections are individual, identity-forming (Borg et al., 2012), and constantly changing. It is a young person's street-connected identity, constructed as they navigate their lives in connection to the street, that impacts upon how they figure a place for themselves when they physically leave the street and move into family homes, schools, and communities.

Identity is co-developed and co-constructed during social interaction (Holland et al., 1998). A young person's sense of being is developed over time, as each interaction is negotiated and interpreted. For street-connected young people, these interactions can involve frequent harassment from municipal authorities, police, and members of the public. Repeated experiences of such harassment and other negative interactions (e.g. Abdelgalil et al., 2004; Feeny, 2005) reinforce their positioning as out-of-place (Shand, 2014) as people think that they 'make the town dirty'.

As a buffer against the stigmatization, and in order to survive, street-connected young people construct complex networks of supportive/reciprocal relationships, finding belonging, social capital, and support from street-based communities and peers (e.g. Beazley, 2003; Davies, 2008). Leaving the street therefore, is a process of overcoming social and emotional ties that result from these relationships and learning to trust adults again. This can be an emotional upheaval. For the young people in Kenya, the street-connected identities they figured had a long-term impact, affecting how they transitioned into communities and schools.

Going (back) to school

The participants were supported by three community-based organizations working in two provincial Kenyan towns. Each organization delivered programmes of reintegration that help young people: (re-)build trusting relationships with adults (e.g. social work-ers, teachers, and family members); visualize a trajectory for life after the street (e.g. Lucchini, 1999); and prepare to return home and go (back) to school. The process takes time and requires that staff meet the individual young person at each particular stage in the journey and support them to move forward – facilitating their transition home or to appropriate alternative care situations (e.g. Corcoran and Wakia, 2013

Ferguson, 2017). A number of the participants had been through an organization's reintegration programme more than once, or had been through multiple programmes delivered by more than one organization. As Williams (2011: 67) describes, the journey away from the street is 'far more likely to resemble a rocky or African *murram* [a claylike laterite material] road than smooth tarmac!' – including their particular transitions into education.

How friends, family, and teachers interact with young people affected their ability to 'figure a place' for themselves in the communities to which they transition. The participants had attended or were attending more than 10 different schools (e.g. primary, secondary, vocational, boarding/residential/ day schools) and were either part of an identifiable group – supported by an organization to attend the school – or attending as the only pupil who had (knowingly) lived on the street. For those who were part of a group, the support received from peers who 'understood' their journey was an important part of their ability to settle in to their new situations and school, but membership of such a group could also isolate them from peers not part of this group. These peers, who did not share their experiences of street-connectedness could not 'understand' them as well. There was an element of shame associated with others knowing their background, which was especially evident in the stories from young people attending a school on their own: they tried not to acknowledge their time on the street and invented back stories rather than let on why they were new to the school.

Thinking of their first few weeks, the participants spoke of being lonely, having problems getting used to concentrating for long school days, and getting used to studying the number of subjects. Making friends was key to settling in. Feeling accepted and having supportive peers also had a subsequent impact on academic performance: 'When I reached even reading was difficult because I didn't have any friends, the education left my head ... now I have *shika kusoma* [caught reading]'.

Social attitudes, especially those coming from deficit understandings of street-connectedness, affected the participants' school experiences, reinforcing their sense of shame and marginalization – teachers' attitudes in particular. A number complained that teachers did not treat them any differently from other students on their first day of school (e.g. not being shown the toilets) and they did not feel welcomed. Teachers' support (academic and psychosocial) and acceptance – as well as their commitment to students' learning – were important for enabling access to high quality education and a sense of belonging in school. This was especially so for the participants whose school experience was their motivation for initially migrating to the street.

Although the participants shared similar experiences of leaving the street, which informed programme structure, there was no single way of working that fits each individual. For example, there were positive and negative aspects to taking groups to the same primary school or sending them to attend a school alone. Problems faced by young people returning to formal education varied, but included their ability to concentrate, difficulty working in English (when they are used to communicating in Kiswahili or another home language), and feeling unwelcomed by teachers and struggling to make friends, among other reasons. In addition, there were concerns voiced by older participants about returning to mainstream primary schools, or starting school for the first time at an advanced age, again highlighting the importance of providing support as they return to the classroom. Some of the participants, who had completed vocational training, were struggling to gain employment in a labour market that was constrained by a decrease in business at the garage complex where they were training. Their levels of formal education restricted the employment opportunities available to them elsewhere, advocating for access to alternative pathways for completing their national examinations in primary and secondary education.

Access to education is an important consideration in the long-term transition process for young people leaving the street and support is especially important in ensuring that they are able to achieve a minimum level of basic education in line with

the SDGs. The need for policies and dedicated funds that focus on support for, and social inclusion of, street-connected young people is widely acknowledged in research and practice (Thomas de Benitez, 2011). The findings of this project specifically highlight the need for effective policy and teacher education for the development of inclusive pedagogies that acknowledge the specific experiences of this group of young people. This is a long-term aim. In the interim, community-based organizations supporting street-connected young people should work with schools as part of an holistic programme of intervention – working in collaboration with teachers to develop systems of support that ease young people through the transition process and during the weeks that follow. This could involve liaising with teachers as part of a wider advocacy programme that aims to address the prejudice and the deficit approach that teachers can take towards street-connected young people (Corcoran, 2015). As the transition back to school is often facilitated after being part of a transitional education programme, a focus on the preparation of young people to return to schools should be included. Such a focus would involve the adaptation of the catch-up curricula delivered by the gatekeeper organizations and the after-school clubs they run in partnership with teachers at the schools receiving the young people afterwards. Developing and formalizing such partnerships is recommended, initially with specific schools where a number of former street-connected young people are in attendance, to develop staged re-entry for them and share good practice in order to develop social work and provide appropriate teacher training.

An overview of this book

This book has three main sections. This first section considers the question of **identifying and reaching the poorest and most vulnerable children** and explores 'how' they might be identified. We open with these issues because we continue to believe that anti-poverty policies have a tendency to treat the poor as though they are a homogeneous group who can be assisted by the same types of programme. This is no more evident when, at the time this publication was being finalized, many countries attempted to minimise the effects of the COVID-19 pandemic by using previously established, non-tailored, welfare targeting methods. As with the prior two volumes of *What Works for the Poorest* (Lawson et al., 2010, 2017), we seek to encourage researchers and practitioners to pose the questions and use novel methods to identify 'who are the poorest' and 'how might they be targeted' whilst considering the specific context of implementation.

Several of the early chapters in the volume provide unique multidimensional and/or index approaches to identifying the most vulnerable children. The section opens with the work of Pomati et al. (Chapter 2) who analyse multidimensional child poverty. Thanks to the SDG requirement for countries to report progress on poverty reduction in all dimensions, there has been an expansion in the number of poverty-related variables covered in national household surveys. The authors exploit this rich poverty data in the Uganda National Household Survey (UBOS, 2017), to define different measures of

child poverty and thus build multidimensional child poverty profiles for Uganda. Given the presence of large numbers of refugees in the country, the authors also extend their analysis to build multidimensional child poverty profiles of children in refugee and host communities. The definition of multidimensional child poverty profiles, as illustrated in this chapter, provides policy makers with useful information to target any interventions where they are needed most.

In Chapter 3, Abekah-Nkrumah and Lawson analyse the link between women's empowerment and child nutrition in SSA. The authors specifically examine the empowering role of women's ability to negotiate informal institutions through the formation of a composite index. The chapter adds value from several perspectives, moving the literature forward beyond the established international gender indexes, such as the OECD's Social Institutions and Gender Index (SIGI), by decomposing models and simulations comparing women's ability to negotiate informal institutions with access to economic resources. The key finding from this chapter is that women's empowerment has a positive impact on the welfare of poor children – consistent with other studies on household resource allocation, which generally show that women's income tends to have a positive effect on their children's welfare. However, they also find that women's ability to negotiate informal institutions has a greater impact on child nutrition than access to economic resources, and advocate for a policy shift from concentrating on interventions that address only women's access to resources, to a holistic framework that equally addresses social institutions likely to constrain the outcome of policies emphasizing women's access to resources.

As noted at the outset of this chapter, conflict is increasingly becoming a major factor affecting the welfare of children. In Chapter 4, Taptué examines the impact of conflict on children's education, specifically analysing the effect of the 2012 conflict in northern Mali, and sheds light on the key factors that contribute to children returning to school after the conflict. Conflict tends to cause a considerable degree of human displacement and this certainly would mean that displaced children miss out on education. Although each conflict is unique, the insights from this chapter still provide very useful lessons for policy makers and practitioners.

In Chapter 5, Adebayo et al. revisit the debate on the drivers of child poverty with the use of a multidimensional approach. Using the 2013 Demographic Health Survey data for Nigeria, the authors show that the prevalence of under-five poverty is most pronounced in rural areas and the northern region of the country. This result is in one part consistent with the general spatial distribution of poverty in developing countries, whereby prevalence of poverty tends to be higher in rural areas. More importantly, spatial identification of the location of children in poverty provides useful information to policy makers to direct their interventions to these specific locations.

Pigois et al. (Chapter 6) analyse the potential role of inter-sectoral synergies in achieving child-centred SDGs in Ethiopia. The authors use the Ethiopian

Ministry of Finance and Economic Cooperation's innovative BOOST database, which is linked with the SDG indicators. Specifically, they examine synergies among key sectors such as health, education, agriculture, and governance. Quite often, sectoral policies in many countries are designed to stand alone, without any consideration of how they could be mutually reinforcing. This chapter provides key insights on the synergies between different sectors, which could be exploited to support the achievement of child-centred SDGs.

Chapter 7, by Agamile and Lawson, combines national household survey data with rich spatial rainfall data to examine the effect of the poverty-weather shock nexus on children's growth deprivation in Uganda. With increasing incidences of climate change-induced weather shocks, this chapter adds a critical angle in identifying and reaching the children that suffer growth deprivation. The results indicate that poverty and weather shocks significantly reduce children's growth. However, when the authors introduce a lag in their shock definition, the results show that the initial decline in children's growth actually recovers after a prolonged period of time. This suggests that early delivery of assistance to children that have suffered growth decline as a result of exposure to shocks could make all the difference in their full recovery or otherwise. Considering the well-known linkages between early childhood growth deprivation and lifetime achievement in terms of health and income, the chapter provides a strong case to deliver assistance to fight children's growth deprivation.

The first section of the book presents a range of studies that identify child poverty and vulnerability, using different methodologies across SSA and complemented by individual country case studies. As we have continually highlighted, across all volumes of *What Works for the Poorest*, we aim to provide methodological advancements in identifying the very poorest and most vulnerable, which is critical in facilitating the allocation of limited budgetary resources. The aforementioned chapters provide some cutting edge techniques on how we can move this agenda forward.

The second section of the book presents key examples of **child sensitive social protection** programmes that seek to ensure the survival and advancement of disadvantaged children. Bilo and Machado open this section with their assessment of the child-sensitivity of non-contributory social protection in North Africa in Chapter 8. Specifically, the authors assess the sensitivity of three key social protection provisions – cash; in-kind transfers and school feeding; and non-contributory health insurance – and their key finding is that the existing schemes still exclude many vulnerable children. They attribute the non-coverage of otherwise vulnerable children to the shortfalls in targeting the beneficiaries, and the limited scope of these programmes only permits coverage of a small number of children. The authors confirm other research, such as Ayala and Lawson (2020), that suggests caution should be adopted in the targeting methods adopted when designing and implementing social welfare programmes for children. Exclusion (and inclusion) errors are not only strongly affected by implementation capacity and modalities, but equally by the type of targeting method adopted. For example, if categorical targeting is

adopted, as one of the first steps of beneficiary identification, then we need to be careful to not exclude children of vulnerable families.

In Chapter 9, Araya et al. assess the multidimensional well-being benefits to young adolescents of one of the largest social protection schemes in Africa: the Productive Safety Net Programme (PSNP) in Ethiopia. Taking a mixed methods approach, the authors find considerable heterogeneity by gender and geography in the benefits of the programme to adolescents' physical health and nutrition, economic empowerment, and the experience of violence. Considering that PSNP was designed as a general programme to deliver food security to food insecure households, these results suggest that increasing direct benefits to adolescents through the programme would require embedding responsive strategies in it.

The next three chapters examine different social protection programmes in Ghana, Nigeria, and Liberia, respectively. In Chapter 10, Adjei et al. examine Ghana's Livelihood Empowerment against Poverty (LEAP) scheme. Their analysis shows that the programme enhanced the consumption of the beneficiaries but without any supplementary livelihood assets. The programme was also seen to deepen dependency among them. In Chapter 11, Akeju examines two programmes that have been implemented in northern Nigeria: the Child Development Grant Programme (CDGP) and the Community-based Management of Acute Malnutrition (CMAM). Although the programmes deliver results in improving the welfare of children under five, like with many such initiatives, the coverage of these interventions is still low and calls are made to scale up the programmes to reach more vulnerable children.

As the next section of the book explores, there remain considerable budget constraints in many SSA countries to finance such workable initiatives. In Chapter 12, Ngwerume and Tanga use evidence from Liberia to shed light on the ability of cash transfers to transform child well-being in fragile contexts. The key finding from their analysis is that cash transfers mitigate institutionalized gender-based disadvantage and create safe and protective environments for children.

The concluding section of the book provides a **public finance and human rights for child development** perspective, aiming to position child-sensitive policy interventions in the broader context of national planning and budgeting cycles, as well as legal and institutional frameworks. Angemi et al. (Chapter 13) adopt a framework to discuss the results of monitoring public finance for children. Using publicly available data, the authors show the spending efficiency of public finance by linking financial releases to sector outcomes at the district level in Uganda. The authors show that local government leadership, accountability, and complementary interventions such as targeted social protection have a major influence in determining the outcomes of public spending. This clearly demonstrates that simply increasing public budget allocation is not enough and must be matched by strong local capacity to use the public funds efficiently.

The role of effective budgeting and rights lie at the intersection of justice and poverty, underpinning the attainment of all SDGs. This provides the focus

of the edited volume *Gender, Poverty and Access to Justice: Policy Implementation in SSA* (Lawson et al., 2020), which has been produced as a complement to this volume of *What Works for Africa's Poorest*. The linkage between appropriate use and allocation of public finance has long been recognized, for both access to justice and, as outlined by Dubin in Chapter 14, the enforcement of human rights. In this chapter the author highlights the role of inclusive education of children with disability and poverty, and the role the state can, and should, play in developing and implementing policies to ensure that children with disabilities are able to access education. Importantly it discusses the recent adoption of the Protocol to the African Charter on the Rights of Persons with Disabilities in Africa, which essentially should provide rights and legal protection for children with disabilities and a mechanism to enforce those rights.

In Chapter 15, Cheruga et al. explore community embedded social protection mechanisms to address the challenges of children working in artisanal mining in the copper-cobalt belt of the Democratic Republic of the Congo. The issue of children working is not entirely surprising in SSA. The International Labour Organization (ILO, 2006) states that SSA has the highest incidence of working children and has made the least progress towards reducing this – owing in part to its staggering population growth, with the population doubling every generation. The authors document evidence of economic, social, educational, and spiritual mechanisms to mitigate the risk of these children's exposure to physical and health harm, school dropout, and sexual exploitation. This evidence provides useful lessons that could be applied to protect children in other settings with very little cost implications as it is all driven by the community.

In the final chapter of this section (Chapter 16), Markowska-Manista analyses children's access to education among the Ba'Aka indigenous community in the Central African Republic. The chapter highlights the challenges that children in minority groups face in accessing education as a result of the inherent socio-cultural set up of their society. The challenges faced by the children in the Ba'Aka indigenous community demonstrate that there are still countries where children's rights to a key service such as education are still not respected. A clear message from this chapter is that governments need to invest public funds to provide access to education to children, particularly those that may be in minority communities, which is enshrined in the UN Convention on the Rights of the Child.

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About the authors

Peter Agamile currently works as an economist at the United Nations World Food Program in Rome, Italy and is also an honorary research fellow at the Global Development Institute of The University of Manchester, UK where he earned his PhD in Development Policy and Management. His current research focusses on poverty, climate change impacts and adaptation, food and nutrition security and agricultural technology adoption with a geographical focus on sub Saharan Africa.

Su Lyn Corcoran is a researcher at the Education and Social Science Research Institute at Manchester Metropolitan University and the programme officer at the Enabling Education Network. Her research focuses on inclusive education, particularly in relation to refugees, street-connectedness, youth employment and social justice in East and Central Africa.

David Lawson is Senior Researcher at the Nordic Africa Institute, Uppsala, Adjunct Professor at the University of Helsinki, Visiting Professor at the University of International Business and Economics, Beijing, and Associate Professor Development Economics and Public Policy at the University of Manchester. He has 25 years of sub-Saharan Africa public policy experience, particularly in relation to policy implementation and research on extreme poverty, having consulted and advised extensively for the DFID, OECD, UNICEF, World Bank, and as resident economic adviser in Ethiopia, Lesotho, and Uganda. He has published widely with more than 100 publications, including in leading peer-reviewed journals and six books that include *What Works for Africa's Poorest* (Practical Action Publishing, 2017), *What Works for The Poorest: Poverty Reduction Programmes for the Ultra Poor* (Practical Action Publishing, 2010), and *Gender, Poverty and Access to Justice: Policy Implementation in SSA* (Routledge, 2020).

CHAPTER 2

Multidimensional child poverty and the SDGs: From measurement to action

Marco Pomati, Shailen Nandy, Diego Angemi, David Gordon, Sheila Depio, Gemma Ahaibwe, Ibrahim Kasirye, James Muwonge, Vincent Ssennono, Stephen Baryahirwa, Baylon Twesigye, Sebnem Eroglu-Hawksworth, Eldin Fahmy, Acomo Oloya, and Viliami Fifita

Abstract

The Sustainable Development Goals require countries to report on progress in reducing poverty in all its dimensions, for adults and children, according to national definitions; this requires changes to how poverty data are collected and analysed. This chapter examines how, following the integration of the Consensual Approach (CA) in the Uganda National Household Survey (UBOS, 2017), democratic definitions and measures of child poverty can be developed on the basis of national consensus about what constitutes an acceptable standard of living. This chapter also provides unique insight on the application of the CA in refugee and host communities. Indicators are based on age-appropriate criteria and reflect children's economic and social rights and national frameworks, such as the Constitution of Uganda. In this chapter we focus specifically on developing democratic measures of socially perceived educational necessities, use them to derive Uganda's multidimensional child poverty profile, and show inequalities across households.

Keywords: Sustainable Development Goals, multidimensional child poverty, poverty measurement, consensual approach, Uganda

Introduction

Extreme poverty continues to blight the lives of hundreds of millions of people around the world. The conditions associated with poverty are responsible for the deaths of thousands every day (Moser et al., 2005), for the exclusion of communities from social, economic, and political participation (Farmer, 2005), and for ensuring those most dramatically affected are kept from having a voice at discussions on how to end poverty. International efforts, such as the

Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs), have been successful at placing and maintaining the issues of poverty and development at the centre of the global policy agenda. This chapter takes as its focus the first SDG, target 1.1, which is to eradicate extreme poverty. If this target were implemented and acted upon, it would have global reach and significance. This would be because, for the first time, all countries in the world could use a method to measure and show the extent of poverty, to generate data for policy and for discussion, and which would, due its very nature, include the voices of everyone in the definition of poverty, in its measurement, and in the design of polices to eradicate it. The chapter details the innovative approach taken by Uganda Bureau of Statistics (UBOS), the Economic and Policy Research Centre (EPRC), and UNICEF Uganda to develop socially meaningful measures of multidimensional child poverty. The chapter begins with a discussion of poverty as a global concern and why, in focusing on multidimensional poverty, the SDGs represent a partial break from previous efforts to assess global poverty. It then builds on the discussion of previous studies to present in more detail one of the methods through which poverty researchers believe multidimensional poverty can be presented in a comparable fashion, across low, middle- and high-income settings, in response to the SDG call. The recent experience of an international group of researchers, in adopting, adapting, and applying the method in Uganda both nationally and with specific reference to refugee hosting areas is then discussed. Lastly, key findings are presented herein.

Poverty as a global concern

The MDGs succeeded in focusing and sustaining global attention on the issue of extreme poverty and its correlates in low and middle-income countries (LMICs). Their successors, the SDGs, contain 17 goals with 169 targets, all of which require data for monitoring progress across a wide range of indicators. That the SDGs maintain global attention on the issues of poverty, inequality, and international development is welcome, but less recognized is the burden that collecting reliable data places on countries, UN agencies, and national statistical offices (WHO, 2017). Existing estimates and indicators of global poverty are not uncontentious (Reddy and Pogge, 2002; Vandemoortele, 2002), not least because of issues such as data quality and the varying capacities of countries to collect reliable and comparable data (Jerven, 2013).

The first SDG (target 1.1) asks the international community to eradicate extreme poverty, defined as living on less than $1.25 a day. It also has a second, some would argue more ambitious target (1.2), which is:

> *By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.*

The explicit recognition that poverty is multidimensional and relative to time and place is in line with the poverty research we outline below, as is the

acknowledgment of a need to reflect the poverty of children as distinct from the poverty of adults. How we define poverty, of children and adults, reveals what we think its cause(s) to be, and thus what solutions are needed to tackle it (Townsend, 1979). Narrow definitions of poverty, focusing solely on economic resources or material circumstance, will suggest very different sets of anti-poverty policies from broader multidimensional definitions, which point to structural processes, power imbalances, the infringement of fundamental rights, and the deprivation of basic material and social needs (Alcock, 1993; Lister, 2004).

Evolving definitions and measures of poverty

The history of scientific research on poverty, conducted in both rich and poor countries, is long (Booth, 1893; Naoroji, 1901; Rowntree, 1901). While early studies equated poverty with insufficient resources to maintain minimal or basic levels of subsistence, a significant body of academic work over the past half-century, by sociologists such as Townsend (1954, 1970, 1979) and economists such as Sen (1987, 1999), has demonstrated that poverty is much more than simply being unable to feed oneself and one's family. People, wherever they are in the world, value being able to participate in social activities and norms. Recognition of the importance and impact of exclusion from these norms (Chase and Walker, 2013) led to more expansive definitions of poverty, which incorporated elements of social participation. Concepts and definitions of poverty now routinely acknowledge it is multidimensional, relative to time and place, and cannot be captured wholly using just a fixed low level of income or consumption (Anand et al., 2010).

Official European definitions of poverty have long made clear it is relative. The European Council over 40 years ago defined poverty as 'individuals or families whose resources are so small as to exclude them from the minimum acceptable way of life of the Member State in which they live' (European Commission, 1975). The definition was updated in 1985 (EEC, 1985), with clarification that the 'resources' which people required were more than solely financial:

> *The poor shall be taken to mean persons, families and groups of persons whose resources (material, cultural and social) are so limited as to exclude them from the minimal acceptable way of life in the Member state in which they live.*

Other international definitions of poverty, such as that adopted at the 1995 World Summit on Social Development (United Nations, 1995), reflect the relative and multidimensional nature of poverty, making reference to minimally acceptable standards of living. 'Overall poverty' was defined as (United Nations, 1995):

> *A lack of income and productive resources to ensure sustainable livelihoods; hunger and malnutrition; ill health; limited or lack of access to education and other basic services; increased morbidity and mortality from illness;*

> *homelessness and inadequate housing; unsafe environments and social discrimination and exclusion. It is also characterized by a lack of participation in decision-making and in civil, social and cultural life.*

Equally applicable to both high and low-income countries, it provides the theoretical and methodological basis for comparable, relative measures of poverty.

Despite these early internationally agreed definitions, it remained the case that many studies and estimates of poverty in LMICs rely on minimal, absolutist measures (Iliffe, 1987; Hall and Midgley, 2004). Official poverty lines traditionally use minimum calorie-requirement monetary measures, based on a 19th-century understanding of a worker's basic nutritional needs. In doing so, they fail to reflect the important non-material, social, or participation dimensions of poverty, or even what is in fact needed for an adequate and nutritionally balanced diet (Morris and Deeming, 2004). Studies often rely on data about economic activity or productivity which, for many countries in Africa, are known to be seriously flawed (Jerven, 2013). In the last 20 years, in response to expanding definitions of poverty, researchers have therefore developed a range of methods and measures to study poverty across different dimensions (UNDP, 1997; Klasen, 2000; Kingdon and Knight, 2006; INSAE, 2007; Alkire and Santos, 2010).

In addition to the changes in how poverty is conceptualized, there is growing interest in child poverty as a distinct issue (UNICEF, 2000, 2004, 2005; Feeny and Boyden, 2003; Minujin et al., 2005; Delamonica and Minujin, 2007; Minujin and Nandy, 2012). The first global estimates of child poverty were made in 2003 (Gordon et al., 2003b), and UNICEF ran its Global Study on Child Poverty and Disparities from 2007 to 2013, in over 50 countries (Fajth et al., 2012). Studies of child poverty often use data from survey platforms such as the Demographic and Health Surveys (DHS) and UNICEF's Multiple Indicator Cluster Surveys (MICS) (Vaessen, 1996; Corsi et al., 2012; Hancioglu and Arnold, 2013). These provide excellent data on a range of outcome indicators about people's actual living conditions, including information about the quality of their dwellings, levels of overcrowding, and their access to basic services such as water, sanitation, healthcare, and education, all of which are reflected in international definitions of poverty.

The Consensual Approach to poverty measurement

Townsend's seminal work *Poverty in the United Kingdom* (1979), and his theory of poverty as relative deprivation, has formed the basis for many modern studies of poverty, including the Poverty and Social Exclusion in the UK study (see www.poverty.ac.uk). Building on Townsend's work, Mack and Lansley (1985) developed and implemented what is now called the Consensual Approach (CA). Their aim was to seek public consensus about what was an

unacceptable standard of living (in the UK), and to discover if anyone fell below that standard. Their contribution, and methodological innovation, was to give the public a voice in the process of defining what poverty was, and in doing so, suggesting how it might be measured. They demonstrated that the public were unanimous about the fact that minimum standards of living needed to go beyond basic food and shelter, to include elements such as social activities and cultural/civic participation. Using focus groups of the public to devise a list of items and activities which everyone in the UK was expected to be able to own or do, and not be prevented from owning/doing due to a lack of resources, Mack and Lansley developed a means to ask a nationally representative sample of the population what items/activities they considered 'were necessary and which all people should be able to afford, and which they should not have to do without'. Respondents were also asked about whether they owned/did the items/activities on the list, and if not, if it was because they did not want them, or because they could not afford them. Respondents unable to afford to own/do items/activities considered 'necessary' by most respondents (i.e. 50 per cent or more) were considered deprived of social perceived necessities (SPNs). SPNs were produced for both individuals and households.

Mack and Lansley's work made a significant impact, inspiring similar studies around the world. They demonstrated that there was a high degree of consensus about what constituted minimally acceptable standards of living and SPNs across different social and economic groups, and that a significant proportion of people in Britain lacked these because they could not afford them (13.8 per cent, 7.5 million people, were deprived of three or more necessities) (Mack and Lansley, 1985). The establishment of SPNs through the CA was not without its critics (e.g. Walker, 1987; McKay, 2004) yet most critics have praised the overall aim of the approach, which is to establish a range of possessions, goods, and services which most adults, regardless of education, social, and cultural backgrounds, endorse as necessary, something most other approaches cannot claim. Although DHS and MICS can provide useful indicators about levels of overcrowding; quality of dwellings; and access to basic services such as water, sanitation, healthcare, and education, they have not been articulated and agreed upon through the clear framework which the CA advocates, underpinned by the concepts of democracy and citizenship (Veit-Wilson, 1987).

To date, the approach has been applied successfully in high-income countries including all 28 European Union countries (European Union, 2012), as well as in Japan (Abe and Pantazis, 2013), and Australia (Saunders, 2011). Researchers have also applied the approach in LMICs, including Bangladesh (Mahbub Uddin Ahmed, 2007), Benin (Nandy and Pomati, 2015), Vietnam (Davies and Smith, 1998), China (Wong et al., 2015), Mali (Nteziyaremye and MkNelly, 2001), Tanzania (Kaijage and Tibaijuka, 1996), South Africa (Noble et al., 2004; Wright, 2008), and Zimbabwe (Mtapuri, 2011).

Poverty measurement in Uganda

Having shown how international concepts, definitions, and measures of poverty have evolved, we turn now to work being done in Uganda. Uganda boasts a well-established tradition of research on poverty, which has identified key drivers of socio-economic and geographical disparities (Okidi and Mugambe, 2002; Lawson et al., 2003; Ssewanyana and Okidi, 2007; Pereznieto et al., 2014). However, national poverty has conventionally been assessed at household level, primarily using monetary indicators. Children are subsumed within households and have not been the units of analysis. That said, there have been several improvements in the way poverty in Uganda is assessed, not least by the availability of better and more reliable data, collected though platforms like the Uganda National Household Survey and Ugandan National Panel Survey series; these are being used to examine multidimensional poverty, and to reflect and recognize that children have needs which may not be identical to those of adults (Witter and Bukokhe, 2004; Witter, 2004; Misinde, 2014; Pereznieto et al., 2014).

The Ugandan Government is committed to achieving the 17 SDGs and to eradicate extreme expenditure poverty by 2030. It has also undertaken to measure and report to the United Nations on progress towards SDG Target 1.2. Poverty is officially defined in both absolute and relative terms (MFPED, 2004), with absolute poverty defined as a 'condition of extreme deprivation of human needs, characterized by the inability of individuals or households to meet or access the minimum requirements for decent human well-being such as nutrition, health, literacy and shelter' (UBOS, 2012: 60). The official absolute poverty line uses data on household expenditures on food and non-food essential items; households with expenditures below a threshold set to maintain daily energy needs and other basic items are classed as living in absolute poverty (UBOS, 2003). There is no explicit official definition of child poverty, although a recent situation analysis of child poverty in Uganda (2014), using a rights-based approach, took a multidimensional view, using information on access to basic needs such as water, shelter, sanitation, information, nutrition, education, and health; children deprived in two or more of these dimensions were classed as poor (MGLASD and UNICEF-Uganda, 2014).

Qualitative studies with children in Uganda have examined the reasons why and how children experience deprivation, and their perspectives on pathways out of poverty (Witter, 2004; Witter and Bukokhe, 2004; Pereznieto et al., 2014). What is noticeable in these works, in addition to worries about a lack of money, is how frequently concerns about the social and non-monetary dimensions of poverty feature, such as not being able to participate in activities with friends and family, or living in unhealthy or precarious settings. Also expressed are concerns about physical safety and personal vulnerability, particularly among young girls, when engaging in work or doing household chores such as collecting water, or even just travelling to school. These elements should be reflected in a socially realistic portrait of poverty. Accurate

estimates of poverty would reflect those in society who either lack enough resources (measured as either low income or consumption) or experience material and social deprivation, or both (Rio Group, 2006). This was a point raised in the report by the Commission on Global Poverty (World Bank, 2016), and is in fact what has been happening in Uganda for several years.

Application of the consensual approach in Uganda

Having described the theoretical basis of the CA and the existing institutional framework in Uganda, we now detail the use of the CA in Uganda. Following extensive consultations led by UBOS, EPRC, and UNICEF-Uganda, a module of questions regarding the needs of Ugandan adults and children separately was developed, based on similar ones used in South Africa in the Social Attitudes Survey (Noble et al., 2006). On the basis of successful pretesting in the Uganda National Panel Survey 2015/16, the CA was integrated in the Uganda National Household Survey (UBOS, 2017), which covered 17,450 households across all 112 districts of Uganda (UBOS, 2017). In addition, 60 focus group discussions were held across all regions of Uganda. The use of focus groups is an important stage of the process (Fahmy and Oloya, 2019), where people from all walks of life can come together to discuss their understandings of poverty, to share what they think the causes of poverty are, and (importantly) to examine and talk over the list of items and activities in the questionnaire.

Consensus

As consensus is central to the approach, we present some basic descriptives from the Uganda National Household Survey 2016/17 (UBOS, 2017), to demonstrate (with regards items and activities for children) that the Ugandan public are clear on what they believe to be items and activities that are 'essential for every parent or caregiver to be able to afford for the children they care for in order for them to enjoy an acceptable standard of living in Uganda today'. Tables 2.1–2.3 illustrate the percentage of households endorsing items for children across different characteristics: by age and gender (Table 2.1); by geography (Table 2.2); and by socio-economic characteristics of respondents (Table 2.3).

National perceptions about necessities for children

The percentages shown in Tables 2.1–2.3 present a clear and systematic consensus across all groupings about the importance of different items and activities for children. Whether respondents are male or female, young or old, urban-based or rurally located, educated or not, what is important for one group is important for another. Of all the items enquired about, only two received less than 50 per cent support: these were 'Some fashionable clothes

Table 2.1 Percentage of households endorsing items for children as necessary by sex and age of respondent

	Sex		Age group	
	Male	Female	<24 years	65+
A visit to a health facility when ill and all the medication prescribed to treat the illness	97	98	98	97
Three meals a day	96	95	95	96
Two sets of clothing	94	93	93	92
Toiletries to be able to wash every day (e.g. soap, hairbrush/comb)	93	93	94	90
All fees, uniform of correct size, and equipment required for school: e.g. books, school bag, lunch/lunch money	89	88	88	86
Own blanket	85	85	87	83
Own bed	81	81	82	79
Two pairs of properly fitting shoes, including a pair of all-weather shoes	80	79	82	74
Own room for children over 10 of different sexes	78	75	74	77
Books at home suitable for their age (including reference and story books)	72	71	72	69
Some new clothes (not second hand or handed on/down)	70	69	73	64
Bus/taxi fare or other transport (e.g. bicycle) to get to school	69	68	69	66
To be able to participate in school trips or events that cost money	68	69	70	66
A desk and chair for homework for school aged children	57	54	56	54
Presents for children once a year on special occasions, e.g. birthdays, Christmas, Eid	55	53	57	52
Educational toys and games	54	52	57	50
Some fashionable clothes for secondary school aged children	38	37	43	35
Own cell phone for secondary school aged children	23	21	26	24

Source: Authors' calculations using the 2016/17 National Household Survey

for secondary school aged children' and 'Own cell phone for secondary school aged children'. In all other cases, a majority of respondents believe that the items are necessities for children. The results show a high level of national support (greater than 90 per cent) for being able to visit a health facility when ill and afford prescribed medication, and for children to have three meals a day, two sets of clothing, and toiletries to be able to wash every day. Over 70 per

Table 2.2 Percentage of households endorsing items for children as necessary by geography

	Place of residence			Regions			
	Rural	Urban	Kampala	Central	Northern	Eastern	Western
A visit to a health facility when ill and all the medication prescribed to treat the illness	97	98	99	99	98	97	96
Three meals a day	96	96	96	94	96	97	94
Two sets of clothing	93	94	93	95	95	92	92
Toiletries to be able to wash every day (e.g. soap, hairbrush/comb)	92	95	95	99	90	89	92
All fees, uniform of correct size, and equipment required for school: e.g. books, school bag, lunch/lunch money	87	91	92	94	91	76	90
Own blanket	84	88	90	92	83	82	84
Own bed	79	86	91	91	78	74	78
Two pairs of properly fitting shoes, including a pair of all-weather shoes	77	86	90	90	80	70	75
Own room for children over 10 of different sexes	76	77	74	75	83	73	76
Books at home suitable for their age (including reference and story books)	69	78	87	84	71	69	58
Some new clothes (not second hand or handed on/down)	68	75	78	79	73	69	58
To be able to participate in school trips or events that cost money	66	75	77	85	66	61	60
Bus/taxi fare or other transport (e.g. bicycle) to get to school	66	74	83	80	66	62	61
A desk and chair for homework for school aged children	54	59	59	59	57	54	51
Presents for children once a year on special occasions, e.g. birthdays, Christmas, Eid	52	59	63	63	60	47	45
Educational toys and games	50	60	67	65	45	55	43
Some fashionable clothes for secondary school aged children	35	43	49	48	42	40	18
Own cell phone for secondary school aged children	23	22	27	23	29	28	11

Source: Authors' calculations using the 2016/17 National Household Survey

Table 2.3 Percentage of households endorsing items for children as necessary by socio-economic status

	Education		Economic status		Monetary poverty (UBOS)	
	No formal education	Higher secondary +	All others	Subsistence/ agricultural labour	Non-poor	Poor
A visit to a health facility when ill and all the medication prescribed to treat the illness	97	98	97	97	98	96
Three meals a day	94	96	95	96	96	95
Two sets of clothing	90	96	93	94	94	91
Toiletries to be able to wash every day (e.g. soap, hairbrush/comb)	89	96	93	93	94	87
All fees, uniform of correct size, and equipment required for school: e.g. books, school bag, lunch/lunch money	85	92	89	87	89	82
Own blanket	79	88	86	85	86	80
Own bed	74	85	83	78	82	73
Own room for children over 10 of different sexes	72	76	76	76	77	73
Two pairs of properly fitting shoes, including a pair of all-weather shoes	69	87	82	75	81	71
Books at home suitable for their age (including reference and story books)	62	80	75	66	72	66
Some new clothes (not second hand or handed on/down)	60	78	73	66	71	65
To be able to participate in school trips or events that cost money	59	75	73	64	70	60
Bus/taxi fare or other transport (e.g. bicycle) to get to school	57	77	73	63	70	60
A desk and chair for homework for school aged children	47	58	57	53	56	51
Presents for children once a year on special occasions, e.g. birthdays, Christmas, Eid	45	60	58	50	55	49
Educational toys and games	42	62	58	47	54	50
Some fashionable clothes for secondary school aged children	30	41	41	33	37	38
Own cell phone for secondary school aged children	20	21	23	22	21	27

Source: Authors' calculations using the 2016/17 National Household Survey

cent of respondents consider the following items to be necessities for children in Uganda: having enough money to cover school fees, uniforms, and equipment for school (e.g. books, bag, and stationery); two pairs of properly fitting shoes; age appropriate books available at home; their own blanket and bed; and own room for children over 10 of different sexes.

There is a national consensus about the necessities of life and minimum living standards in Uganda, which goes beyond traditional measures of low income and basic food or shelter. The people of Uganda believe that children also need materials to enable them to study as well as sufficient resources to enable social, cultural, and civic participation (e.g. school trips and gift giving on special occasions). It is worth noting that respondents with a lower occupational status were slightly less likely to say each item was essential. The largest difference was in the perception of necessities regarded as school-based deprivation items, for example 'Educational toys and games' and 'Bus/taxi fare or other transport (e.g. bicycle) to get to school', where, in the case of the former, 62 per cent of respondents with a secondary or tertiary education considered these items essential compared with only 42 per cent of respondents with no formal education. Although both primary and secondary education are now free in Uganda, a fifth of the population have no formal education (UBOS, 2016), and this may have contributed to differences in opinions about the importance of travelling to school independently and educational toys. In very few instances did a majority disagree that an item was not a necessity.

Deprivation of socially perceived necessities

While there is a broad consensus among respondents about what constitutes the necessities of life for children, it is important in a heterogeneous society like Uganda to identify if children lack certain items and activities due to parental choice rather than because of poverty; that is, we need to separate choice from constraint, although the evidence available suggests that it is rare that parents will actively choose against the best interests of their children (Ridge, 2002; Main and Bradshaw, 2012; Dermott and Pomati, 2016). In line with the CA method we define children as deprived of an item only if they do not have it and most importantly cannot afford it.

In Table 2.4 we present the children's items alongside the percentage of Ugandans who feel that the item is essential and the percentage of children who are deprived of that item. Despite the fact that over 80 per cent of Ugandans argue that children should be able to have three meals a day, two sets of clothing, and toiletries, as well as their own bed and blanket, almost half (48 per cent) cannot afford three meals a day and roughly a third are deprived of a visit to a health facility when ill and toiletries to be able to wash every day. Moreover, despite high endorsement, there are high levels of deprivation of educational items such as books at home suitable for a child's age (59 per cent), a desk and chair for homework (45 per cent), educational toys and games (44 per cent), and ability to participate in school trips (38 per

Table 2.4 Socially perceived necessities for Ugandan children

Relevant age range	Child deprivations	% essential	% don't have, can't afford (deprived)
0–17	A visit to the health facility when ill and all prescribed medication	97	33
0–17	Three meals a day	96	48
0–17	Two sets of clothing	94	17
0–17	Toiletries to be able to wash everyday	93	29
6–17	All fees, uniforms of correct size, and equipment	88	34
0–17	Own blanket	85	66
0–17	Own bed	81	74
0–17	Two pairs of properly fitting shoes	79	71
11–17	Own room for children over 10 of different sexes	76	17
3–17	*Books at home for their age*	71	59
0–17	Some new clothes	70	63
6–17	*To be able to participate in school trips*	69	38
6–17	Bus/taxi fare or other transport	68	41
6–17	*A desk and chair for homework*	55	45
6–17	Presents for children once a year on special occasions	54	70
3–12	*Educational toys and games*	53	44
11–17	Some fashionable clothes for secondary school children[1]	37	9
11–17	Own cell phone for secondary school children	22	9

[1] As fashionable clothes and own cell phone for secondary school children were not endorsed by 50 per cent or more of the population these items were not used to measure child deprivation.

cent). Although less than 20 per cent of children are deprived of two sets of clothing or their own room (for children over 10 of different sexes), the level of deprivation for all other items endorsed by more than 50 per cent of the population is greater than 20 per cent.

Creating a household deprivation index and finding the poverty line

When measuring child deprivation it is also important to consider household deprivations which affect their well-being. For example, the ability of households to make regular savings for emergencies, having enough money to repair a leaking roof, the ability to replace broken pots and pans for cooking

or furniture, and having independent means of transportation. While over 80 per cent of Ugandans consider these necessities, three out of every five children (59 per cent) in Uganda live in households unable to afford to put some money aside for emergencies and 41 per cent live in households which cannot afford to replace broken pots and pans. We also included in our index of child deprivation the ability to pay for school fees and to take children to a health facility when ill and afford all the medication prescribed to treat that illness. Before including all these items in an overall index, it is important to establish the empirical ability of each constituent item in contributing towards a valid and reliable index. Deprivation of each of these items showed a clear association with the head of household's education, the likelihood of being poor (according to the official UBOS expenditure poverty measure), economic activity, and a measure of subjective poverty. All items were therefore considered to be valid. Two items appeared to affect the reliability of the index (enough money to repair or replace electrical goods and having own means of transport) and were thus excluded. The additivity of this final set of items was then explored. Components of a good deprivation index should be additive; that is, a person or household with a deprivation score of three should be on average poorer than a person or household with a deprivation score of two. It is therefore important to ensure that respondents who cannot afford two pairs of properly fitting shoes and a bed for each of their children have fewer resources (equivalized household expenditure) than those who cannot afford beds but have shoes for their children. All reliable and valid items proved to be additive and were summed together to obtain the final deprivation index. Table 2.5 provides the final list of items in the children deprivation index used to measure child deprivation. The latter was then used in conjunction with equivalized monthly household expenditure (adjusted for regional market prices variation) to derive the poverty line. Townsend (1979) argued that as resources declined, deprivation would increase, but there came a point in this relationship where an additional small fall in income would result in a large increase in deprivation and this 'break of slope' could be used to identify the optimal poverty line. This is shown in Figure 2.1, which shows the average adjusted expenditure for a given level of deprivation. The horizontal axis shows that the number of SPN deprivations can range from 0 to 22, the latter value signifying that the child is deprived of all household and child items. The vertical axis shows the average equivalized household expenditure for each level of deprivation. Combining information on deprivation and expenditure allows us to identify the break of slope at six deprivations, suggesting a poverty line of 141,771 Ugandan shillings (UGX; US\$38.69) per month.[1]

Figure 2.1 also enables categorization of children according to both expenditure and SPN deprivation. Over half of Uganda's children (56 per cent) live both below the identified poverty line (UGX 141,771) and experience six or more deprivations; these children are therefore identified as living in multidimensional poverty. Over a third of children (36 per cent) have both expenditure levels above the identified poverty line and are experiencing fewer than

Table 2.5 Final child deprivation index components

Relevant age range	Item
0–17	A visit to the health facility when ill and all prescribed medication
0–17	Three meals a day
0–17	Two sets of clothing
0–17	Toiletries to be able to wash everyday
6–17	All fees, uniforms of correct size, and equipment
0–17	Own blanket
0–17	Own bed
0–17	Two pairs of properly fitting shoes
11–17	Own room for children over 10 of different sexes
3–17	Books at home for their age
0–17	Some new clothes
6–17	To be able to participate in school trips
6–17	Bus/taxi fare or other transport
6–17	A desk and chair for homework
6–17	Presents for children once a year on special occasions
3–12	Educational toys and games
0–17	To be able to make regular savings for emergencies
0–17	Repair a leaking roof for main living quarters
0–17	Repair or replace any worn out furniture
0–17	Replace broken pots and pans for cooking
0–17	Take children to a medical facility when sick
0–17	Pay school fees for children

six deprivations and are considered not poor. In using information on both expenditure and deprivation we err on the side of caution and identify children as multidimensionally poor only when they live in a household both below the identified poverty line and experience six or more deprivations.

It should be noted that Uganda's official poverty line is set at about half this expenditure level (at 2017 prices) meaning that a substantial number of Ugandan children officially considered not poor will in fact be living below the identified poverty line as well as being deprived of six or more SPNs. In fact, just under half (44 per cent) of children classed as not poor according to Uganda's official poverty line are multidimensionally poor according to the CA. This explains the difference between the official Ugandan poverty estimate (according to which only 23 per cent of children are poor) and the one found by the CA (56 per cent). Table 2.6 presents the same figures broken
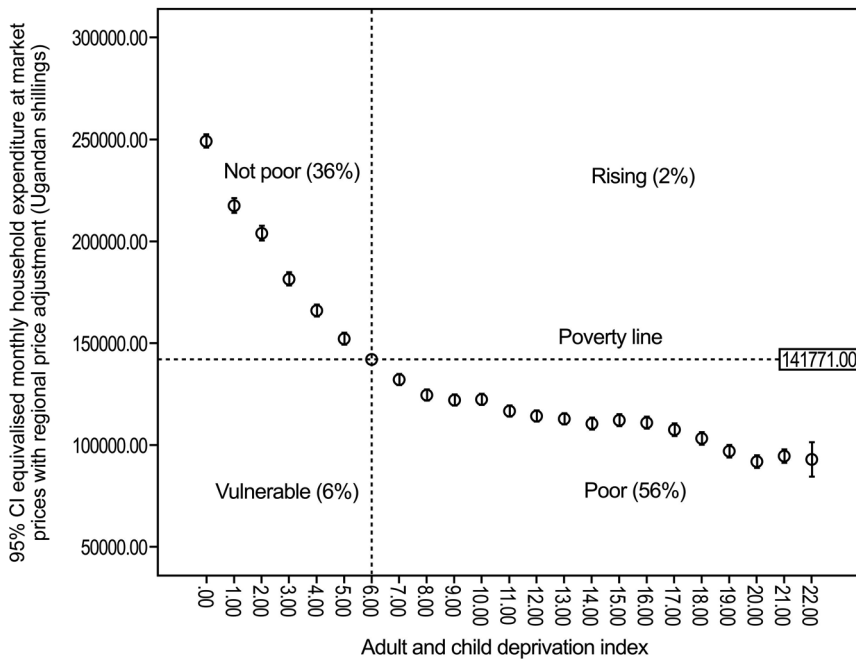
Figure 2.1 Average equivalized household expenditure by number of deprivations

down by place and region of residence and confirms that the extent of poverty revealed by the CA is much greater. We also provide details of the regional variation in poverty rates. Rural areas are twice as likely to be poor than urban areas; in Kampala 15 per cent of children are estimated to be poor compared with over 80 per cent in West Nile, Bukedi, and Karamoja.

Combining information on expenditure and SPN deprivation has the added benefit of identifying children who are either vulnerable to poverty or rising out of poverty. In the top right of Figure 2.1 we can identify children with household expenditure levels above the identified poverty line but who had more than six deprivations. This relatively small group of children (2 per cent) are those likely to be in the process of rising out of poverty. Another 6 per cent of children are classified as vulnerable to poverty given their low household expenditure combined with lower than expected levels of SPN deprivation. Table 2.6 shows, for example, how the Teso region stands out compared with most regions as having an average prevalence of multidimensionally poor children (58 per cent) but almost three times the prevalence of vulnerable children. In Teso, 17 per cent of children are classed as being vulnerable, compared with 6 per cent nationally, which suggests that a significant number of children may be at risk without additional help in the future.

Table 2.6 Monetary and multidimensional child poverty in Uganda, 2017

		Uganda's official poverty line		Consensual Approach Multidimensional poverty groups							
		Poor		Poor		Rising		Vulnerable		Not poor	
		Prev.	Distr.	Prev.	Distr.	Prev.	Distr.	Prev.	Distr.	Prev.	Distr.
Uganda	National estimate	23	100	56	100	2	100	6	100	36	100
Place of residence	Rural	27	90	63	88	2	67	6	82	29	63
	Urban	10	10	32	12	3	33	5	18	61	37
Sub-region	Kampala	3	0	15	1	7	10	1	1	77	7
	Ankole	7	3	37	5	4	17	4	5	55	12
	Central1	10	5	34	8	3	18	3	8	60	21
	Central2	11	5	45	9	2	11	9	18	44	13
	Tooro	12	4	48	6	4	13	6	8	43	9
	Kigezi	12	2	57	4	3	6	3	2	36	4
	Lango	16	4	47	5	2	6	6	7	45	8
	Bunyoro	19	5	51	5	2	6	7	8	40	7
	Teso	27	6	58	5	1	2	17	17	24	4
	Acholi	35	7	76	6	1	2	3	3	20	3
	Bugishu	37	8	80	7	0	1	3	3	17	2
	Westnile	39	13	81	11	0	2	0	1	19	4
	Busoga	40	19	75	15	1	4	8	15	16	5
	Bukedi	46	11	83	8	0	1	2	2	15	2
	Karamoja	60	8	84	5	0	0	8	4	9	1

Note: Prev., prevalence (%); Distr., distribution (%)

Conclusions

Uganda is the first country in Africa to apply the CA in a national income and expenditure survey. Well-established research programmes such as AFROBAROMETER (www.afrobarometer.org) have contributed to our understanding of people's perceptions of democracy and human rights in Africa, their (dis)satisfaction with government provision of basic services, and their economic and political priorities. Survey platforms running in most countries in Africa, such as DHS and MICS, collect valuable information about people's living conditions, and are enabling researchers to study multidimensional poverty (Gordon et al., 2003a; Nandy and Gordon, 2009; Alkire and Santos, 2010). The analysis in this chapter suggests that over half (56 per cent) of Uganda's children experience multidimensional poverty. Almost half (48 per cent) cannot afford three meals a day, roughly a third are deprived of fees and uniforms or a visit to a health facility when ill, or toiletries to be able to wash every day. Despite being considered necessary by a majority of Ugandans, most children go without important educational items, such as books at home (59 per cent) and many are deprived of a desk and chair for homework (45 per cent), educational toys and games (44 per cent), and are unable to participate in school trips (38 per cent).

The CA can overcome many of the perceived 'limitations' of monetary poverty measures. The approach has already provided practical and policy relevant poverty measures in several African countries (Kaijage and Tibaijuka, 1996; Nteziyaremye and Mknelly, 2001; Noble et al., 2004, 2006; Wright, 2008; Mtapuri, 2011; Nandy and Pomati, 2015). Thus, consensus-based poverty measures can provide a useful complement to low expenditure poverty measures, in low, middle, and high income countries (Gordon and Nandy, 2012, 2016). They have repeatedly been shown to produce statistically valid and reliable indicators of poverty and deprivation. They are based on a well-established sociological theory and reflect internationally accepted definitions of poverty and can be used to derive national definitions of poverty and estimate their prevalence as required by the SDGs. Results are easy to interpret and to explain to policymakers and the public. A short module of questions can be added to existing household surveys and be integrated successfully with ongoing surveys and data collection exercises. Such data can be used to assess the poverty of adults and children with age appropriate measures across different dimensions. Not least, they provide all sections of the public with a say in what constitutes acceptable living standards in their own countries, thus introducing a democratic element to the definition of poverty and ensuring socially realistic poverty measurement. The extent of deprivation for each of the SPNs can also be used to inform specific policies.

Extreme poverty remains a global challenge, which the SDGs recognize. In calling for the eradication of poverty 'in all its dimensions', SDG target 1.2 goes beyond the MDGs, requiring governments and international

organizations to collect more disaggregated data on poverty, for children and adults, based on national definitions. This chapter has shown how this is being done in Uganda, using reliable and valid indicators of poverty. The CA has also been used to examine child poverty among refugees and host communities in Uganda (UNICEF Uganda et al., 2018), which also confirmed consensus over what constitutes necessities of life. This work demonstrated high rates of deprivation of SPNs among both host and refugee children, thus making the case to go beyond emergency response and build the livelihoods and resilience of recent arrivals without compromising that of longer-term refugees, while continuing to prioritize poverty reduction programmes aimed at lifting Ugandans out of poverty.

The CA is being used to objectively identify the necessities of life and a minimally acceptable standard of living. The Commission on Global Poverty (World Bank, 2016) recommended greater use of indicators to reflect the multidimensional nature of poverty. UBOS, with EPRC and UNICEF Uganda, has shown that reliable and valid indices of multidimensional poverty can be developed using existing survey platforms. Every country in Africa has a national household income and expenditure survey which can be used to follow Uganda's example. Doing so will facilitate the development of meaningful measures of multidimensional poverty to track progress towards SDG 1.2, and most importantly inform the formulation of child sensitive policy interventions aimed at supporting the effective implementation of national development plans.

Notes

1. Technical details of how this finding was established using the generalized linear model are available in UNICEF-Uganda et al. (2019).

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About the authors

Marco Pomati and **Shailen Nandy** are staff members at the University of Cardiff, UK.

Diego Angemi is the Chief of Social Policy and Advocacy at UNICEF Uganda. He is an economist with over 15 years of diverse experience in research and policy analysis. His areas of expertise include poverty and vulnerability analysis, and the design and implementation of national development plans, in addition to various aspects of public financial management (i.e. budget formulation, execution, monitoring, and reporting) and aid effectiveness.

David Gordon, **Sebnem Eroglu-Hawksworth**, **Eldin Fahmy**, and **Acomo Oloya** are staff members at the University of Bristol, UK.

Viliami Fifita is a member of staff at the Kingdom of Tonga National Bureau of Statistics.

Sheila Depio, **Gemma Ahaibwe**, and **Ibrahim Kasirye** are staff members at the Economic Policy Research Centre, Kampala, Uganda.

James Muwonge, **Vincent Ssennono**, **Stephen Baryahirwa**, and **Baylon Twesigye** are staff members at the Uganda Bureau of Statistics.

CHAPTER 3

Women's empowerment and impact on child nutrition in sub-Saharan Africa

Gordon Abekah-Nkrumah and David Lawson

Abstract

Using Demographic and Health Survey data from 20 sub-Saharan African countries, this chapter conceptualizes and measures women's empowerment based on women's ability to negotiate informal institutions or have access to economic resources, and examines their differential effect on child nutrition. By constructing a composite women's empowerment index (CWEI) we are able to confirm the view that women's empowerment has positive returns to child nutrition. Decomposed models and simulations comparing women's ability to negotiate informal institutions with access to economic resources suggest that the former has a higher effect on child nutrition than the latter. Nonetheless, traditional factors (women's education, household wealth, access to health services) have a higher effect on child nutrition compared with women's empowerment either as a composite or disaggregated. Thus, we advocate that using women's empowerment as a channel to improving household outcomes such as child nutrition should target women's access not only to economic resources, but also to informal institutions. The chapter cautions, however, that emphasis on women's empowerment should not be at the expense of equally important traditional factors that have direct benefits both for child nutrition and women's empowerment in the short and long run.

Keywords: women's empowerment, empowerment index, child nutrition, sub-Saharan Africa, Demographic and Health Survey, principal component analysis

Introduction

In sub-Saharan Africa (SSA), the relatively high levels of food insecurity, poverty, and inequality (Okojie and Shimeles, 2006; Ferreira and Ravallion, 2008; Verpoorten et al., 2013) further complicate the malnutrition challenge. Out of 178 million children with stunted growth in developing countries in 2005 (150 million in 2017), Eastern and Middle Africa's estimated prevalence of 50 per cent and 42 per cent, respectively, were said to be the highest (see WHO Multi-Growth Centre Reference Study and de Onis, 2006; Development

Initiatives, 2018). Twenty-three of the 40 countries with a stunting prevalence of 40 per cent came from Africa as against 16 from Asia and 1 from Latin America and the Caribbean (LAC). In addition to the high levels of childhood malnutrition in SSA, it remains the continent with the least progress on reducing malnutrition since the 1990s.[1]

To understand the childhood malnutrition problem, different authors have examined the determinants of child nutrition, with findings suggesting women's empowerment as one of the key determinants. In this literature, the link between women's empowerment and child nutrition is premised on the assumption that empowered women are likely to have the capacity to either bargain for household resources or reflect their preferences in household resource allocation (Lundberg and Pollak, 1993; Lundberg et al., 1997; Thomas et al., 1997; Sen and Batliwala, 2000). Given that in many societies, childcare is the responsibility of women, it is argued that extra resources accruing to women from increased empowerment or bargaining will be used to improve the welfare of children (Engle et al., 1999, 2000; Smith et al., 2003; Friedemann-Sanchez, 2006). Using this proposition, several studies have found a positive correlation between women's empowerment/bargaining power and child nutrition (Hoddinott and Haddad, 1995; Thomas et al., 1997; Allendorf, 2007; Fafchamps et al., 2009).

Notwithstanding the growing evidence supporting a correlation between women's empowerment and child nutrition, an unresolved issue in this literature relates to the conceptualization and measurement of women's empowerment. In the economics literature, for example, a resource-based approach (as in women's access to economic resources) seems to be dominant. This is evident in the use of economic-related proxies (e.g. public transfers and welfare receipts, income shares of women, unearned income, assets brought into marriage or current assets, education or couple education differences, employment, and yield by gender from farm plots) as indicators of women's empowerment. Another important source of reference for women's empowerment, the human development literature, has tended to focus on gender differences in what Sen refers to as capabilities/achievement – health, education, and income (Sen, 1999).

A review of the components of several gender inequality indices (Gender Inequality Index (GII); Gender Related Development Index (GDI); Gender Empowerment Measure (GEM); and the Gender Equity Index (GEI) suggests the predominant use of education, health, and income as measures of women's empowerment. While not disagreeing with the resource and capabilities/achievement-based approach, it is also the case that it tells only one side of the women's empowerment story. That is, women's empowerment is typically focused on gender-based differences in access to economic resources and/or capabilities/achievement. A major challenge with this approach is that it ignores the circumstances under which women have access to resources or achievement.

The importance of social institutions to the empowerment process has been emphasized by Narayan (2005). She argues that the agency of poor people (i.e. their assets and capabilities) is influenced by societal opportunity structures, defined to include the broader institutional, social, and political context of formal and informal rules and norms within which actors pursue their interest. Thus, women's empowerment or ability to bargain may be determined not only by access to resources/achievement, but also by the gendered nature of social institutions within which actors such as women pursue their interest. Kabeer (2005) also argues that although access to resources has the potential to change women's lives, the social relationships that govern such access determine the extent to which women's lives can change. For example, women's ability to participate in household decisions, challenge manipulative and violent behaviour by men, move about freely (autonomy), or even make decisions that reflect their preferences, depends on what is perceived as acceptable or not, based on the nature of norms and traditions in a particular society. In addition to these conceptual viewpoints, findings of empirical studies (Morrisson and Jütting, 2004; Wahhaj and Kanzianga, 2010) have emphasized the importance of social institutions to the empowerment discourse.

Wahhaj and Kanzianga (2010) argue, based on their findings in Burkina Faso, that gender differences in resource allocation in the household can be explained without resorting to any assumptions of innate differences in preferences or power between men and women, but rather by differences in positions created by social norms. Goldstein and Udry (2008) indicate that yield differences between male and female plots in Ghana are due to constraints faced by women, which are deemed to be rooted in power relations of social groupings and positions held in such social hierarchies. Besides these two studies, Doss (2011) argues that failure to reflect changing community norms and social institutions in any empirical analysis of women's empowerment may make the results incomplete or misleading (Doss, 2011). The foregoing discussion highlights the fact that social institutions are just as important as women's access to resources in the process of empowering women. Thus, this chapter measures women's empowerment from the perspective of social institutions and access to resources, and examines their differential effect on child nutrition using Demographic and Health Surveys (DHS) data from 20 SSA countries.

Theoretical model

Our modelling is based on bargaining models that have mostly been used to predict the effect of women's empowerment or bargaining on development outcomes such as health, education, or agriculture (Quisumbing and de la Brière, 2000; Beegle et al., 2001; Quisumbing and Maluccio, 2003). However, the use of bargaining models is constrained by data limitations.[3] We adopt Becker's household production theory, which has been used extensively to

model the determinants of health by integrating a biomedical health technology into an economic model (Rosenzweig and Schultz, 1983; Pitt and Rosenzweig, 1985; Thomas et al., 1997; Lawson and Appleton, 2007; Allendorf, 2007). In these models, the core argument is that individual health status is the outcome of health inputs, as well as personal, household, and community characteristics. We extend the household production model by including women's empowerment as one of the arguments in the household that influences the health status of household members (Hindin, 2000; Allendorf, 2007). The full framework adopted here can be viewed in Abekah-Nkrumah and Lawson (2020).

Methods: variable definition and measurement

Women's empowerment

Women's empowerment is captured by our composite women's empowerment index (CWEI), which comprises two dimensions: access to resources and access to social institutions. Access to resources is measured by several variables assumed to capture this access (see Table 3.1). With respect to social institutions, the variables selected are those assumed to capture aspects of women's empowerment deemed to be influenced by the broader context of social institutions (norms, values, traditions, etc.) within a society. In the context of this chapter, social institutions have four sub-dimensions: women's participation in family decisions; women's perception of violent behaviour by partners; women's autonomy; and societal preferences. The variables representing each of the five dimensions of CWEI (see Table 3.1) have often been used in the women's empowerment literature to capture women's agency. Thus, these variables are not entirely new. The difference in terms of their use in the current context is the argument that issues such as participation in decision-making, violent behaviour by partners, and women's autonomy give us an idea of not only women's exercise of agency, but also the condition/circumstances under which such agency is exercised. For example, women's acceptance of violent behaviour from partners reflects not only lack of agency, but also their helplessness and more importantly, internalization of social norms and traditions that approve of such practices (Kabeer, 1999; Malhotra et al., 2002).

CWEI is computed using a robust and systematic procedure. First an intra-variable correlation of the variables representing each dimension of CWEI is carried out to ensure that all the variables of a particular dimension measure the same underlying concept (results not shown). Second, the variables of each dimension are standardized and aggregated using polychoric principal component analysis (PCA).[4]

Third, the sub-indices (women's participation in family decision-making, women's perception of violent behaviour by their partners, women's autonomy, societal preferences, and access to resources) are aggregated using an

Table 3.1 Summary statistics of dependent and independent variables

Variables	Obs	Mean	SD	Variable type
Height-for-age z-score	37,086	−1.480	1.882	Continuous
Composite empowerment index	37,086	0.467	0.151	Continuous
Social institutions index	37,086	0.482	0.179	Continuous
Access to resources index	37,086	0.613	0.174	Continuous
Other explanatory variables				
Child age (months)				
0–11 (reference)	37,086	0.308	0.462	
12–23	37,086	0.294	0.456	Dummy
24–35	37,086	0.209	0.406	Dummy
36–47	37,086	0.118	0.323	Dummy
48–59	37,086	0.071	0.258	Dummy
Female child	37,086	0.501	0.500	Dummy
Size at birth				
Below average (reference)	37,086	0.146	0.353	Dummy
Average and above	37,086	0.716	0.451	Dummy
Very large	37,086	0.137	0.344	Dummy
Woman's education				
No education (reference)	37,086	0.497	0.500	Dummy
Primary	37,086	0.338	0.473	Dummy
Secondary	37,086	0.141	0.348	Dummy
Tertiary	37,086	0.023	0.151	Dummy
Partner's education				
No education (reference)	37,086	0.418	0.493	Dummy
Primary	37,086	0.338	0.473	Dummy
Secondary	37,086	0.198	0.398	Dummy
Tertiary	37,086	0.046	0.210	Dummy
Woman's height	37,086	158.573	7.125	Continuous
Age at first birth	37,086	18.965	3.669	Continuous
Female household head	37,086	0.109	0.312	Dummy
No. of children in household	37,086	2.062	1.227	Continuous
No. of women in household	37,086	1.583	1.027	Continuous
Asset index	37,086	−0.142	0.887	Continuous
NSCPH- piped water	37,086	0.376	0.151	Continuous
NSCPH- flush toilet	37,086	0.066	0.088	Continuous
NSCPW- antenatal visits	37,086	0.427	0.318	Continuous
NSCPW- health facility delivery	37,086	0.418	0.318	Continuous
Rural residence	37,086	0.781	0.413	Dummy
Sample dummy				
HAZ specification	37,086	−1.480	1.882	
WHZ specification	36,987	−0.231	1.548	

Source: Author's calculations via DHS Datasets.
Note: NSCPH is non-self cluster proportion of households, NSCPW is non-self cluster proportion of women, and NSCD is non-self cluster differences. Note that the summary statistics given above refer mainly to the main model for the height-for-age specifications. The same variables are used in the weight-for-height specifications but with a slightly different sample as indicated by the sample dummy variable. Note the summary statistics for the instruments used for the robustness checks are not reported.

unweighted non-linear function of the sub-indices. The use of the non-linear function in the aggregation procedure is to ensure that disempowerment in each dimension is considered while allowing for partial compensation among sub-indices. The composite index computed is referred to as the composite women's empowerment index. Given that social institutions has four dimensions, a second composite index is computed from the four sub-indices of social institutions, referred to as the social institutions index. It is important to emphasize that this second composite index (social institutions index) is mainly for the purposes of estimating the effect of social institutions on child nutrition. Finally, we carry out a sensitivity test to ascertain the extent to which variation in the underlying assumptions of the composite index (i.e. input indicators, applied weights (Table 3.7), and aggregation method) results in changes in the composite index. The results of the sensitivity test suggest that with the exception of the weighting method (i.e. from polychoric PCA to standard PCA) variations in the underlying assumptions do not change the CWEI significantly. A detailed discussion of the procedure used in calculating the CWEI and its sub-indices is available (see Abekah-Nkrumah and Lawson, 2020) but is not shown in this chapter due to space limitations.

Other variables

Two anthropometric indicators of child nutrition (height-for-age z-score (HAZ) and weight-for-height z-score (WHZ)) are used as dependent variables. HAZ and WHZ measure long-term and short-term nutrition, respectively.

Besides the dependent variables, other covariates known in the child health literature as correlates of child nutrition (see for example Sahn, 1994; Thomas et al., 1996; Smith et al., 2003; Christiaensen and Alderman, 2004; Van de Poel et al., 2007; Bassole, 2007; Chirwa and Ngalawa, 2008; Kabubo-Mariara et al., 2009) are included in our specifications. These include child characteristics: child age, gender, and size at birth; household characteristics: parental education, mother's height, age at first birth, sex of head of household, number of children in household, number of women in household, and asset index; and community level characteristics: type of residence and accessibility of health services. In the child health literature, direct prices of health services, indirect prices such as distance to health facilities, and availability of health personnel have often been used to capture accessibility to health services (Sahn, 1994; Lavy et al., 1996; Thomas et al., 1996). However, these variables are not available in the DHS data. Thus, we follow an alternative approach (see Christiaensen and Alderman, 2004; Kabubo-Mariara et al., 2009) where the non-self cluster shares of health services and other public goods are used as proxies for health services accessibility. Thus, we use the non-self cluster proportion of households with piped water and flush toilets and the non-self cluster proportion of women who had four or more antenatal visits and gave birth in a health facility as proxies for health services accessibility.

Results and discussion

Descriptive and preliminary findings

Table 3.2 presents the percentage of stunted and wasted children, together with country rankings. The results in Table 3.2 suggest that Senegal and Ghana have the lowest percentage of stunted children while Rwanda and Niger have the highest among the 20 countries studied. In the case of wasting, Eswatini (formerly Swaziland) and Tanzania have the lowest percentage, while Burkina Faso and Mali have the highest. Considering that wasting reflects short-term malnutrition and episodes of illness in children, a higher percentage may reflect weak health systems. For example, Burkina Faso, Ethiopia, Mali, Niger, and Nigeria, the bottom five countries on the wasting rankings, have some of the worst maternal mortality rates (MMR) in the world, an indicator used to measure the strength of a country's health system (WHO, 2010).[5] In contrast, a higher prevalence of stunting may reflect not only troubled health systems but also poverty. The bottom four countries on the stunting ranking are part of a group of countries in SSA referred to by the International Monetary Fund (IMF) as fragile low-income countries (IMF, 2012). In Senegal, which has the lowest prevalence of stunting, there are 3.5 times as many stunted children in poorer households than in the richest households. This may be an indication of higher levels of inequality in child nutrition in Senegal.

The distribution of stunting and wasting by living standards (wealth index) suggests that in all the countries studied, the poor have a higher prevalence of stunted and wasted children than the rich and richest. In countries such as Ghana, Cameroon, Mali, Mozambique, Namibia, Nigeria, Eswatini, and Tanzania, the percentage of stunted children in poorer households is over twice that of the richest households. The distribution of wasting in the population by wealth quantiles is not different. Considering that in many SSA countries, a relatively large percentage of the population is considered poor, a higher burden of stunting and wasting among the poor could mean several generations of malnourished and unhealthy individuals with its concomitant effect on poverty and economic growth.[6]

Further analysis of the data (results not shown) suggests that at all ages girls are less likely to be stunted or wasted and severely stunted or wasted than boys. In addition, children aged 0–23 months are less likely to be stunted, severely stunted, wasted, and severely wasted than those in the 24–59 months bracket. The findings are consistent with prior studies both within and outside of SSA (Sahn and Stifel, 2002; Smith et al., 2003). A cross-tabulation of HAZ and WHZ with some covariates (results not shown) suggests that progressively bigger size at birth (i.e. below average, average and above, and very large) and a situation of no parental education, to some education (i.e. primary, secondary, and tertiary) reduces the likelihood that a child will be stunted or wasted. Female household headship and residing in an urban area are also associated with lower percentages of stunted and wasted children.

Table 3.2 Percentage of children under five, stunted and wasted

Countries	% Stunted		% Wasted	
	Value	Rank	Value	Rank
Senegal (2005)	20.17	1	8.52	11
Ghana (2008)	27.23	2	8.89	12
Eswatini (2007)	27.56	3	2.53	1
Namibia (2006)	29.35	4	7.59	10
Zimbabwe (2006)	32.81	5	6.49	8
Cameroon (2004)	35.42	6	6.26	7
Sierra Leone (2008)	36.39	7	10.42	14
Mali (2006)	37.8	8	15.58	19
Uganda (2006)	37.98	9	6.59	9
Guinea (2005)	39.29	10	11.3	15
Nigeria (2008)	40.39	11	13.95	18
Burkina Faso (2003)	43.07	12	21.36	20
Tanzania (2005)	43.69	13	3.57	2
Dem Rep of Congo (2007)	44.74	14	10.1	13
Zambia (2007)	45.42	15	5.31	6
Malawi (2010)	46.91	16	4.14	3
Mozambique (2003)	47.13	17	5.09	5
Ethiopia (2005)	50.05	18	12.18	16
Rwanda (2005)	50.66	19	4.67	4
Niger (2006)	54.85	20	12.96	17
West Africa	39	A	10.32	B
East and Central Africa	44.36	C	14.61	C
Southern Africa	40.98	B	5.30	A
Sub-Saharan Africa	41		10.32	

Source: Author's calculations via DHS datasets

In terms of women's empowerment, the rankings in Table 3.8 suggest that women from Southern African Countries have a higher score on CWEI than their counterparts from East, Central, and West Africa. The top ten ranked countries on the CWEI include five countries (Eswatini, Namibia, Zimbabwe, Malawi, and Mozambique) from Southern Africa. The country rankings of the social institutions sub-indices (family decisions, violence, autonomy, and societal preferences) follow the same trend. This confirms the results of existing gender empowerment indices such as the SIGI, GII, GDI, and GEM, where countries from Southern Africa are favourably ranked compared with their counterparts from East, Central, and West Africa (see Abekah-Nkrumah and Lawson, 2020). In contrast, countries from West Africa seem to perform better

than South, East, and Central African countries on the access to resources sub-index.

Regression results

Effect of women's empowerment on child nutrition.
First, we examine the effect of CWEI on child nutrition. The results in Table 3.3 suggest that CWEI is significantly positively correlated with both HAZ ($p<0.01$) and WHZ ($p<0.05$). Second, we test the proposition that social institutions are as important as women's access to resources in determining child nutrition. To do this, we first estimate a model with the social institutions index as one of the covariates (see model I in Table 3.4). The results show that the social institutions index is significantly positively correlated with both HAZ and WHZ. We then include the women's access to resources index and re-estimate the model (see model II in Table 3.4). The social institutions index remains significant albeit that the coefficient drops by 4.3 per cent in the HAZ model but increases by 2.2 per cent in the WHZ model. The significance of the social institutions index after adjusting for women's access to resources and other covariates suggests that social institutions are an important component of women's empowerment and an essential determinant of child nutrition. The results support the argument that the broader institutional context of norms constitutes an essential aspect of women's empowerment (Jütting and Morrisson, 2005; Mabsout and van Staveren, 2010; Doss, 2011). Thus, over-concentration on access to resources may mean ignoring other equally important dimensions of women's empowerment.

In addition, the results indicate that in the HAZ models, women's access to resources is significantly positive, with a coefficient more than 1.5 times that of social institutions. In the case of the WHZ models, the coefficient of women's access to resources is significantly negative and about 13 per cent lower than the corresponding coefficient of the social institutions index. This suggests that women's access to resources plays an independent role in improving long-term child nutrition as suggested by prior authors (Haddad and Hoddinott, 1994; Quisumbing and Maluccio, 2003; Duflo, 2003). This is not surprising, considering that women's access to cash, participation in the labour market, and education (components of access to resources index) are all essential inputs into child nutrition production. It is important to note that investment in child nutrition from the gains of women's access to resources may take time to be reflected in child nutritional outcomes. Such delayed effect could mean compromised nutritional status in the short term, explaining the negative correlation with WHZ, but a positive correlation with HAZ. Indeed, participation in the labour market and long periods of education (formal or informal) may mean limited time for childcare, which can have negative implications on child health and nutrition, especially in the short term. Even where child carers are brought in to help, it may not be possible for them to provide the type of care biological mothers would have provided

Table 3.3 Effect of women's empowerment on child nutrition

Variables	Height-for-age z score		Weight-for-height z-score	
	Beta	SE	Beta	SE
Composite empowerment index	0.252	[0.071]***	0.158	[0.068]**
Child age (months)				
12–23	−1.224	[0.024]***	−0.140	[0.022]***
24–35	−1.533	[0.029]***	0.108	[0.024]***
36–47	−1.585	[0.032]***	0.242	[0.026]***
48–49	−1.298	[0.035]***	0.141	[0.030]***
Female child	0.263	[0.017]***	0.043	[0.016]***
Size at birth				
Average and above	0.341	[0.025]***	0.229	[0.026]***
Very large	0.491	[0.036]***	0.413	[0.030]***
Woman's education				
Primary	0.061	[0.026]**	0.111	[0.021]***
Secondary	0.170	[0.036]***	0.154	[0.032]***
Tertiary	0.340	[0.071]***	0.218	[0.067]***
Partner's education				
Primary	0.036	[0.026]	0.090	[0.026]***
Secondary	0.031	[0.032]	0.095	[0.031]***
Tertiary	−0.033	[0.058]	0.169	[0.051]***
Woman's height	0.039	[0.002]***	0.002	[0.001]**
Age at first birth	−0.001	[0.003]	−0.002	[0.002]
Female household head	0.027	[0.031]	−0.025	[0.025]
No. of children in household	−0.037	[0.010]***	−0.049	[0.008]***
No. of women in household	0.017	[0.010]*	0.018	[0.009]**
Wealth index	0.209	[0.015]***	0.021	[0.014]
NSCPH- piped water	0.136	[0.073]*	0.002	[0.060]
NSCPH- flush toilet	−0.155	[0.125]	−0.079	[0.115]
NSCPW- 4+ antenatal visits	0.085	[0.037]**	0.039	[0.032]
NSCPW- health facility delivery	0.166	[0.040]***	0.104	[0.036]***
Rural residence	−0.057	[0.029]**	0.021	[0.028]
Country fixed effect	Yes		Yes	
Constant	−6.701	[0.266]***	−1.312	[0.187]***
Observations	37086		36987	
R^2	0.188		0.077	
Adj. R^2	0.187		0.076	

Source: Author's calculations.
Note: Betas are significant at p<0.01 (***), p<0.05 (**), and p< 0.1 (*). Country fixed effects are controlled for but not reported. Reported standard errors are based on a cluster robust covariance matrix.

Table 3.4 Effect of social norms and access to resources on child nutrition

Variables	Height-for-age z score				Weight-for-height z score			
	Model I		Model II		Model I		Model II	
	Beta	SE	Beta	SE	Beta	SE	Beta	SE
Social institutions index	0.146	[0.062]**	0.140	[0.062]**	0.189	[0.058]***	0.193	[0.058]***
Access to resources index			0.234	[0.053]***			−0.168	[0.048]***
Child age (months)								
12–23	−1.223	[0.024]***	−1.224	[0.024]***	−0.140	[0.022]***	−0.139	[0.022]***
24–35	−1.532	[0.029]***	−1.534	[0.029]***	0.108	[0.024]***	0.110	[0.023]***
36–47	−1.584	[0.032]***	−1.586	[0.032]***	0.242	[0.026]***	0.243	[0.026]***
48–49	−1.296	[0.034]***	−1.300	[0.034]***	0.140	[0.030]***	0.143	[0.030]***
Female child	0.263	[0.017]***	0.264	[0.017]***	0.043	[0.016]***	0.042	[0.016]***
Size at birth								
Average and above	0.341	[0.025]***	0.341	[0.025]***	0.229	[0.026]***	0.229	[0.026]***
Very large	0.490	[0.036]***	0.491	[0.036]***	0.413	[0.030]***	0.412	[0.030]***
Woman's education								
Primary	0.058	[0.026]**	0.069	[0.026]***	0.108	[0.021]***	0.101	[0.021]***
Secondary	0.167	[0.036]***	0.186	[0.036]***	0.148	[0.032]***	0.134	[0.032]***
Tertiary	0.338	[0.071]***	0.361	[0.071]***	0.209	[0.067]***	0.192	[0.067]***
Partner's education								
Primary	0.040	[0.026]	0.029	[0.025]	0.091	[0.026]***	0.099	[0.026]***
Secondary	0.038	[0.032]	0.016	[0.032]	0.098	[0.031]***	0.114	[0.030]***
Tertiary	−0.023	[0.058]	−0.054	[0.057]	0.174	[0.051]***	0.196	[0.050]***

(Continues)

Table 3.4 (Continued)

Variables	Height-for-age z score				Weight-for-height z score			
	Model I		Model II		Model I		Model II	
	Beta	SE	Beta	SE	Beta	SE	Beta	SE
Woman's height	0.039	[0.002]***	0.039	[0.002]***	0.002	[0.001]**	0.002	[0.001]**
Age at first birth	-0.001	[0.003]	-0.001	[0.003]	-0.002	[0.002]	-0.002	[0.002]
Female Household Head	0.029	[0.031]	0.028	[0.031]	-0.026	[0.025]	-0.026	[0.025]
No. of children in HH	-0.038	[0.010]***	-0.038	[0.010]***	-0.049	[0.008]***	-0.048	[0.008]***
No. of women in HH	0.017	[0.010]*	0.017	[0.010]*	0.019	[0.009]**	0.019	[0.009]**
Wealth index	0.212	[0.015]***	0.203	[0.015]***	0.022	[0.014]	0.028	[0.015]*
NSCPH- piped water	0.137	[0.073]*	0.140	[0.073]*	-0.000	[0.060]	-0.003	[0.060]
NSCPH- flush toilet	-0.153	[0.125]	-0.154	[0.125]	-0.082	[0.115]	-0.082	[0.115]
NSCPW- antenatal visits	0.085	[0.037]**	0.089	[0.037]**	0.037	[0.032]	0.035	[0.032]
NSCPW- health fac deliv	0.170	[0.040]***	0.165	[0.040]***	0.102	[0.036]***	0.106	[0.036]***
Rural residence	-0.060	[0.029]**	-0.051	[0.030]*	0.020	[0.028]	0.013	[0.028]
Country fixed effect	Yes		Yes		Yes		Yes	
Constant	-6.653	[0.266]***	-6.818	[0.265]***	-1.320	[0.186]***	-1.201	[0.189]***
Observations	37086		37086		36987		36987	
R²	0.188		0.189		0.077		0.077	
Adj. R²	0.187		0.188		0.076		0.076	

Source: Author's calculations.
*** is significant at p<0.01, ** is significant at p<0.05, and * is significant at p< 0.1. Country fixed effects are controlled for but not reported. Reported standard errors are based on a cluster robust covariance matrix. NSCPH is a non-self cluster proportion of households, while NSCPW is a non-self cluster proportion of women.

Table 3.5 Dimensions of women's empowerment on child nutrition

Sub-indices	Height-for-age		Weight-for-height	
	Beta	SE	Beta	SE
Family decisions	0.127	[0.042]***	0.116	[0.036]***
Violence perception	0.065	[0.023]***	0.066	[0.017]***
Women's autonomy	−0.026	[0.032]	0.029	[0.026]
Societal preferences	0.199	[0.138]	0.177	[0.119]
Access to resources	0.215	[0.050]***	−0.147	[0.045]***
All other covariates	Yes		Yes	
Country fixed effects	Yes		Yes	

Source: Author's calculations.
*** is significant at p<0.01, ** is significant at p<0.05, and * is significant at p< 0.1.

(e.g. breastfeeding, bonding, nurturing, and psychosocial care), thereby compromising the nutrition of children especially in the short term (Dodd, 2005; House, 2007; Chen and Li, 2009).

Third, we decompose CWEI into its component sub-indices and estimate their individual effect on HAZ and WHZ. The results in Table 3.5 suggest that women's participation in family decisions, perception of violent behaviour by partners, and access to resources are significantly correlated with HAZ and WHZ. All the significant coefficients are positive except women's access to resources, which is significantly negatively correlated with WHZ. In contrast, the women's autonomy and societal preferences sub-indices are not significant. This may not imply that the two sub-indices are not important in the women's empowerment child nutrition nexus. Perhaps the results reflect the fact that norms on women's autonomy and preferences of society take a long time to change (Albiston, 2005). Thus their effect on outcome indicators such as child nutrition may also take a long time to be realized. Even where the sub-indices are further decomposed into underlying individual variables, the results (not reported) are not substantially different from when the sub-indices are used.

Effect of other covariates on child nutrition: child/household/community level characteristics.
In summarizing the child and community health effects in this section, we comment on the effect of other covariates on child nutrition. Consistent with existing studies (Chirwa and Ngalawa, 2008; Kabubo-Mariara et al., 2009), a U-shaped relationship exists between child age and child nutrition. A plausible explanation for the U-shaped relationship may be due to weaning from breastfeeding as children grow (i.e. between 12 and 24 months).

All levels of women's education (primary, secondary, and tertiary) are positively correlated with HAZ and WHZ. The same is true for partner's education, but only with respect to WHZ. The result is consistent with the long-held

Table 3.6 Summary statistics of women's empowerment input variables

Variables	Obs	Mean	SD	Measurement
Indicators for family decisions index: participation in household decision-making in the following areas				
Woman's own health	187,524	2.535	0.977	1 = someone else, 2 = partner alone, 3 = woman and partner, 4 = woman alone
Large HH purchases	187,524	2.355	0.904	1 = someone else, 2 = partner alone, 3 = woman and partner, 4 = woman alone
Daily HH purchases	187,524	2.630	1.058	1 = someone else, 2 = partner alone, 3 = woman and partner, 4 = woman alone
Family visit	187,524	2.595	0.962	1 = someone else, 2 = partner alone, 3 = woman and partner, 4 = woman alone
Indicators for violence perception index: wife-beating is justified if woman				
Goes out no permission	221,089	0.601	0.490	0 = Yes, 1 = No
Neglects the child	221,089	0.589	0.492	0 = Yes, 1 = No
Argues with husband	221,089	0.646	0.478	0 = Yes, 1 = No
Refuses sex	221,089	0.679	0.467	0 = Yes, 1 = No
If she burns food	221,089	0.774	0.418	0 = Yes, 1 = No
Indicators for autonomy index: do women find it to be a big problem for any of the following				
Permission for health care	234,680	0.810	0.393	0 = big problem, 1 = not a big problem
Go for health care alone	234,680	0.688	0.463	0 = big problem, 1 = not a big problem
Use male care provider	234,680	0.732	0.443	0 = big problem, 1 = not a big problem
Indicators for societal preferences index				
Number of wives	108,437	0.417	0.773	Continuous
Age at first marriage	108,437	17.646	4.098	Continuous
Couple age difference	108,437	–21.732	14.468	Continuous
Indicators for access to resources index				
Couple education diff	119,261	–1.230	3.631	Continuous
Type of earnings	119,261	2.679	1.313	1 = not paid, 2 = in-kind only, 3 = cash and in-kind, 4 = cash
Is woman working?	119,261	0.912	0.283	0 = No, 1 = Yes

Source: Author's calculations via DHS data

Table 3.7 Weights comparison: output from polychoric and standard PCA

Variables	Polychoric PCA			Standard PCA		
	Weights	% FPC	Obs.	Weights	% FPC	Obs
Family decisions on		79.43	187,524		71.21	187,524
Woman's own health	0.487			0.4833		
Large household purchases	0.515			0.5175		
Small household purchases	0.512			0.5113		
Family visits by woman	0.485			0.4869		
Wife-beating acceptable if woman		82.33	221,089		63.70	221,089
Goes out without permission	0.455			0.4640		
Neglects the child	0.455			0.4616		
Argues with husband	0.456			0.4648		
Refuses sex	0.439			0.4377		
Burns food	0.431			0.4049		
Does woman have a problem		82.31	234,680		65.99	234,680
Seeking permission for health care	0.570			0.5597		
Seeking health care alone	0.579			0.5817		
If there is no female health provider	0.583			0.5902		
Variance of FPC						
Societal norms		46.15	108,437		46.15	108,437
Number of wives	–0.522			–0.5221		
Age at first marriage	0.540			0.5399		
Couple age diff (%)	0.660			0.6602		
Access to resources		37.69	119,261		35.58	119,261
Couple education diff	–0.052			–0.1295		
Earnings type	0.708			0.7101		
Woman is working	0.704			0.6920		

Source: Author's calculations via DHS datasets

view that education is an important correlate of child health status. It is argued that educated parents are more likely to: (1) be efficient in the production of childcare via superior childcare practices and better standards of hygiene; (2) achieve higher allocative efficiency through the choice of better health inputs; and (3) adopt better behaviour that may enhance their own health and that of their children (Rosenzweig and Schultz, 1982; Sahn, 1994; Christiaensen and Alderman, 2004). As expected, mother's height is positively correlated with both HAZ and WHZ. Mother's height is expected to capture mother's genetic and phenotypic influence on child health and nutrition.

Table 3.8 Country rankings of the composite women's empowerment index and its sub-indices

Countries	Composite empowerment		Family decisions		Violence		Autonomy		Societal preferences		Access to resources	
	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
Eswatini	1	0.68378	4	0.67988	2	0.91301	1	0.92979	3	0.56363	1	0.84455
Namibia	2	0.61595	1	0.71017	3	0.81357	12	0.82178	1	0.59550	8	0.72743
Ghana	3	0.59365	5	0.67467	5	0.80139	10	0.83403	4	0.55346	2	0.80053
Rwanda	4	0.55861	12	0.53272	4	0.81344	2	0.90623	2	0.57220	20	0.55370
Zimbabwe	5	0.55675	2	0.68938	6	0.74281	5	0.86141	5	0.55058	10	0.71096
Malawi	6	0.55272	8	0.59665	1	0.94149	16	0.78825	7	0.54822	18	0.60601
Nigeria	7	0.53410	11	0.54445	8	0.71416	13	0.82023	14	0.51773	3	0.77745
Zambia	8	0.51657	3	0.68037	11	0.60124	7	0.84615	6	0.54924	11	0.69886
Mozambique	9	0.50563	10	0.55578	9	0.68125	3	0.89033	11	0.53580	14	0.63188
Tanzania	10	0.48488	14	0.51037	10	0.65098	4	0.86801	10	0.54054	17	0.60793
Uganda	11	0.48141	7	0.63477	12	0.58731	9	0.83702	9	0.54158	13	0.65430
Senegal	12	0.47477	20	0.32634	15	0.53611	6	0.85263	16	0.50521	9	0.72160
DRC	13	0.46396	13	0.51341	14	0.53624	15	0.79557	8	0.54627	12	0.68668
Niger	14	0.46030	17	0.44201	18	0.49160	11	0.83085	19	0.48670	7	0.73206
Mali	15	0.44847	18	0.43704	16	0.53115	17	0.78700	17	0.50180	4	0.76828
Sierra Leone	16	0.44841	9	0.59121	13	0.55745	8	0.83744	15	0.51451	19	0.58023
Burkina Faso	17	0.41602	19	0.42185	17	0.51840	14	0.81247	18	0.50105	16	0.61945
Ethiopia	18	0.39760	6	0.66685	19	0.48262	18	0.50716	12	0.52794	15	0.62195
Cameroon	19	0.36951	16	0.46996	7	0.71664	19	-1.29E-08	13	0.52158	6	0.74121
Guinea	20	0.28252	15	0.49772	20	0.36351	20	-1.29E-08	20	0.46623	5	0.74517

Source: Author's calculations based on DHS data

Prior studies in Ghana, Côte d'Ivoire, and Kenya have found a positive correlation between mother's height and child nutrition (Sahn, 1994; Lavy et al., 1996; Kabubo-Mariara et al., 2009).

In addition, the number of under-five children in a household is significantly negatively correlated with child nutrition. Generally, one expects that increasing the number of under-five children in a household will put excessive pressure on household resources, especially in poorer households, and reduce attention given to children, with consequential negative implications for their long-term nutrition and health (Smith et al., 2003; Kabubo-Mariara et al., 2009). Thus, the significantly negative correlation is consistent with conventional thinking. In contrast, the presence of additional elderly women in the household could substitute for child health production by the mother.

The child health literature has emphasized the importance of access to good quality water and sanitation for child nutrition (Lavy et al., 1996; Bassole, 2007). A core argument in this regard is that access to good quality water and sanitation aids infection and disease prevention (UNICEF, 1998). Consistent with this thinking, the proportion of households in a cluster with piped water is positively correlated with child nutrition but not significant in the case of WHZ. In contrast, the cluster proportion of households with flush toilets is negatively correlated with child nutrition though not significantly. Although the negative correlation is counter-intuitive, it is not entirely unexpected. Other authors have found similar results using SSA data (Lawson and Appleton, 2007; Van de Poel et al., 2007; Kabubo-Mariara et al., 2009). In the case of Lawson and Appleton, they argue that the negative effect could be due to the poor maintenance of such sanitation infrastructure.

Policy discussion

The results discussed confirm existing studies that have argued that women's empowerment is an important correlate of household health. Most importantly, the results emphasize the argument that social institutions are a very important dimension of women's empowerment. This is not surprising given that social institutions tend to underlie gender differences in several development outcomes (Narayan, 2005; Goldstein and Udry, 2008; Wahhaj and Kanzianga, 2010) and the fact that access to resources is seen as not being a sufficient condition for the exercise of agency (Lokshin and Ravallion, 2005). However, given that proxies measuring women's access to resources dominate indicators used to measure women's empowerment, resulting interventions have mostly emphasized women's access to resources (e.g. access to micro credit, gender parity in school enrolment and public and private sector leadership positions, and land and property rights).

As important as the above interventions are, the difficulty is that they are implemented in the context of prevailing social institutions that often favour men. Thus, the success of policies on women's access to resources could be constrained by the dynamics of prevailing social institutions. For example,

in Nepal, Allendorf (2007) finds that women's land rights are correlated with their level of empowerment, and consequently child nutrition, but notes that using women's ownership of land to improve their level of empowerment could be difficult due to land fragmentation and opposition to women's inheritance of land. The author instead advocates for a policy that helps to move women out of the subsistence economy, while the issue of land rights is pursued as a long-term strategy. In southern Ghana, women's inability to fallow their plot (a practice that explains gender yield differences) is said to be rooted in the politics of power in the village, which is often defined by existing social institutions.

In the context of the above discussion, we argue that the findings of this chapter emphasize the importance of social institutions, not only as an essential and integral part of women's empowerment, but more importantly, as having instrumental value in improving development outcomes such as child nutrition. On this basis, we advocate for a policy shift from concentrating on interventions that address only women's access to resources, to a holistic framework that equally addresses social institutions likely to constrain the outcome of policies emphasizing women's access to resources. The challenge, however, is how policy makers are able negotiate the right balance in terms of where to place emphasis (i.e. access to resources? social institutions? or other traditional factors known to influence child nutrition?). To address this question, we return to child nutrition for the three areas mentioned (access to resources, social norms, and traditional factors) via a simple simulation exercise.

First, we re-estimate the effect of CWEI and its sub-indices on HAZ and WHZ. In each case, the dependent variable (HAZ or WHZ) is predicted and its mean at different thresholds of selected covariates calculated. Second, we use the WHO threshold to categorize HAZ and WHZ into binary variables (i.e. stunting and wasting, respectively). The effect of CWEI and its sub-indices on stunting and wasting is also estimated and the probability of having either stunted or wasted growth is calculated for each child in the sample. Finally, the mean probability of stunting or wasting at different thresholds of the selected covariate is calculated. The policy implication of a given covariate is determined by examining the percentage change in the mean of the predicted dependent variable as one moves from a lower to a higher threshold on the covariate in question. It is important to caution that this exercise does not seek to suggest causality between the selected covariate and child nutrition, given the possibility of identification challenges with the estimated models.

The results (see Table 3.9) suggest that the predicted mean HAZ of children whose mothers are in the middle 20 per cent and top 20 per cent of the CWEI distribution is 3.5 per cent and 21.6 per cent, respectively, higher than children whose mothers are in the lowest 20 per cent of the CWEI distribution. With respect to WHZ, children of women in the lowest 20 per cent of the CWEI distribution have mean predicted WHZ 46 per cent lower than children of women in the middle 20 per cent of CWEI, and 96 per cent lower than

Table 3.9 Policy implications of changes in women's empowerment on child nutritional status

Policy indicators	Height-for-age		Stunting		Weight-for-height		Wasting	
	Fitted mean	% Change	Mean prob.	% Change	Fitted mean	% Change	Mean prob.	% Change
Comp. empowerment ind.								
Lowest 20%	−1.569		0.425		−0.443		0.153	
Middle 20%	−1.515	3.5	0.405	(4.8)	−0.237	46.4	0.120	(21.7)
Top 20%	−1.230	21.6	0.331	(22.2)	−0.016	96.3	0.091	(40.9)
Social institutions index								
Lowest 20%	−1.524		0.420		−0.465		0.156	
Middle 20%	−1.480	2.9	0.399	(35)	−0.248	46.7	0.122	(21.8)
Top 20%	−1.280	16	0.343	(18.3)	−0.017	96.3	0.086	(44.9)
Access to resources index								
Lowest 20%	−1.600		0.429		−0.079		0.096	
Middle 20%	−1.510	5.6	0.410	(4.5)	−0.279	(254.3)	0.121	26.0
Top 20%	−1.460	8.7	0.403	(6.0)	−0.373	(373.8)	0.144	50.9

Source: Author's calculation based on DHS data

children of women in the top 20 per cent of the CWEI distribution. The trend is almost the same using stunting and wasting as dependent variables, except that the percentage change is higher. The sub-indices also follow a similar trend, except that changes in social institutions seem to have a higher impact on child nutrition than improvements in women's access to resources. For example, a movement from the lowest 20 per cent to the top 20 per cent on the social institutions index increases predicted mean HAZ by 16 per cent compared with 8.7 per cent on the access to resources index. For the same level of movement, predicted mean WHZ improves by 96.3 per cent compared to a deterioration of 373.8 per cent for women's access to resources. Besides women's empowerment, the policy implications of changes in women's education, household wealth, place of residence, number of children under five, and accessibility to health services are also examined. The results in Table 3.10 suggest that the percentage increase in predicted mean HAZ and WHZ is 38 per cent and 108 per cent between women with no education and secondary education; 10 per cent and 10.6 per cent between women of the poorest wealth quintile to the middle quintile; 56 per cent and 301 per cent in favour of urban women compared with rural women; 15 per cent and 68 per cent between the lowest and middle 20 per cent of women in the community with 4+ antenatal uptake; and 14 per cent and 57 per cent between the lowest and middle 20 per cent of women in the community who deliver in a health facility, respectively.[7] The results for stunting and wasting also follow a similar trend.

Generally, the simulation results suggest that improvements in social institutions are likely to have a better return on child nutrition compared with women's access to resources. Most importantly, improvements in women's education, household wealth, accessibility to health services, reduction in the number of under-five children per household, and urban residence have higher returns on child nutrition compared with women's empowerment in general. While not suggesting that women's access to resources is less important, the current results make a case for greater emphasis on social institutions and other traditional determinants of child nutrition (women's education, household wealth, and access to health services) than has been the case. In addition, the comparatively higher returns on traditional determinants of child nutrition compared with women's empowerment suggest that policymakers may be better off offering more policy space to such traditional determinants. This suggestion is anchored on the assumption that policies that seek to improve women's education, household wealth, access to health services, and bridging the rural–urban gap may in the short term improve child health, but also bridge the gender inequality gap and consequently empower women in the long term. A policy option that predominantly emphasizes women's empowerment (more especially social institutions) may mean targeting mainly long-term returns. This is based on the fact that social and normative institutions take a long time to form and change and are often taken for granted (North, 1990; Albiston, 2005). In the institutional literature,

Table 3.10 Policy implications of changes in selected policy variables on child nutritional status

Policy indicators	Height-for-age		Stunting		Weight-for-height		Wasting	
	Fitted mean	% Change	Mean prob.	% Change	Fitted mean	% Change	Mean prob.	% Change
Woman's education								
No education	-1.606		0.438		-0.506		0.168	
Primary	-1.525	5.0	0.393	(10.2)	-0.003	99.4	0.078	(53.9)
Secondary	-0.981	38.9	0.272	(37.8)	0.040	108.0	0.080	(52.2)
Tertiary	-0.533	66.8	0.176	(59.7)	0.225	144.5	0.067	(60.3)
Wealth index								
Poorest	-1.704		0.457		-0.318		0.137	
Poorer	-1.639	3.8	0.440	(3.8)	-0.296	6.9	0.133	(2.9)
Middle	-1.533	10.0	0.410	(10.4)	-0.285	10.6	0.129	(5.5)
Richer	-1.336	21.6	0.356	(22.2)	-0.198	37.9	0.114	(16.8)
Richest	-0.921	46	0.252	(44.9)	-0.040	87.3	0.089	(34.8)
Residence								
Urban	-1.019		0.283		-0.072		0.096	
Rural	-1.590	(56.0)	0.424	50.1	-0.289	(301.5)	0.131	36.1
No. of children 36 months+								
1	-1.821		0.436		0.058		0.059	
2	-1.958	(7.5)	0.477	9.5	-0.043	(173.9)	0.071	20.9
3	-2.011	(10.4)	0.495	13.7	-0.237	(507.3)	0.094	59.0
4	-2.060	(13.1)	0.508	16.7	-0.370	(735.0)	0.108	83.7
5+	-2.212	(21.4)	0.538	23.4	-0.561	(1062.4)	0.124	110.0

(Continues)

Table 3.10 (*Continued*)

Policy indicators	Height-for-age		Stunting		Weight-for-height		Wasting	
	Fitted mean	% Change	Mean prob.	% Change	Fitted mean	% Change	Mean prob.	% Change
CA- antenatal serv.								
Lowest 20%	-1.724		0.468		-0.552		0.189	
Middle 20%	-1.472	14.6	0.392	(16.1)	-0.177	67.9	0.105	(44.1)
Top 20%	-1.162	32.6	0.314	(32.8)	-0.003	99.5	0.081	(56.9)
CA- institutional births								
Lowest 20%	-1.751		0.479		-0.459		0.171	
Middle 20%	-1.503	14.2	0.398	(16.9)	-0.197	57.0	0.110	(35.5)
Top 20%	-1.092	37.6	0.295	(38.3)	-0.083	81.8	0.095	(44.3)

Source: Author's calculation based on DHS data

it has been argued that formal institutions such as laws, rules and regulations, and governance mechanisms take a long time to change due generally to their sticky and path dependent nature (North, 1990; Williamson, 1998, 2000). As a result, one will expect informal/social institutions to take a much longer time to change. Thus, a policy to pursue improvements in women's empowerment through a social institutional channel, though rational and supported by the current evidence, may take a longer time for its effect on child nutrition to be realized.

Notes

1. For the period from 1990 to 2011, under-five stunting declined by 15% for SSA, 36% for South Asia, 48% for LAC, 35% for Middle East and North Africa, and 71% for East Asia and the Pacific.

2. The GII is measured along three dimensions: labour market (i.e. labour market participation), empowerment (i.e. educational attainment at the secondary level and above and parliamentary representations), and finally reproductive health (i.e. adolescent fertility and maternal mortality). The GDI uses life expectancy, education, and income, while the GEM is measured using proportion of seats held by women in national parliaments, percentage of women in economic decision-making positions (including administrative, managerial, professional, and technical occupations), and female share of income (earned incomes of males vs. females).

3. Some of the indicators used to measure women's empowerment are not available for both the wife and the husband in the DHS data. This constitutes a limitation given that in a bargaining model that will be necessary.

4. The use of polychoric PCA is based on the fact that variables on some of the dimensions are either binary or categorical, or a combination of both. This makes the use of standard PCA, which is based on multivariate normality of input variables (Table 3.6), inappropriate (see Jolliffe, 2002; Kolenikov and Angeles, 2009). In addition to polychoric PCA, standard PCA is also used, however the results suggest that polychoric PCA performs better than standard PCA, confirming the inappropriateness of standard PCA in the current case.

5. The MMRs for Nigeria (840/100,000), Mali (830/100,000), and Niger (870/100,000) are above the SSA average of 640/100,000, while those of Burkina Faso (560/100,000) and Ethiopia (470/100,000) though lower than the SSA average are still very high compared with figures such as 150/100,000 in Namibia and 350/100,000 in Ghana (statistics from WHO, 2010).

6. It is estimated that about half of SSA's population are poor (based on the US$1 a day threshold). Moreover, SSA has consistently had the lowest score on the Human Development Index (HDI) since the 1990s with the HDI of some SSA countries even deteriorating over the years (UNDP, 2005, 2011).

7. The first number in the set of percentages given here is the mean predicted HAZ while the second is the mean predicted WHZ. In addition, the focus on percentage changes arising from movement from the lowest 20% to the middle 20%, no education to secondary education, and poorest to

the middle quintile is based on the fact that such improvements are realistic and possible to achieve by government, compared with, for example, a jump from no education to tertiary education or from the poorest to the richest quintile.

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About the authors

Gordon Abekah-Nkrumah is a Senior Lecturer and International Relations Coordinator at the University of Ghana Business School.

David Lawson is Senior Researcher at the Nordic Africa Institute, Uppsala, Adjunct Professor at the University of Helsinki, Visiting Professor at the University of International Business and Economics, Beijing, and Associate Professor Development Economics and Public Policy at the University of Manchester. He has 25 years of sub-Saharan Africa public policy experience, particularly in relation to policy implementation and research on extreme poverty, having consulted and advised extensively for the DFID, OECD, UNICEF, World Bank, and as resident economic adviser in Ethiopia, Lesotho, and Uganda. He has published widely with more than 100 publications, including in leading peer-reviewed journals and six books that include *What Works for Africa's Poorest* (Practical Action Publishing, 2017), *What Works for The Poorest: Poverty Reduction Programmes for the Ultra Poor* (Practical Action Publishing, 2010), and *Gender, Poverty and Access to Justice: Policy Implementation in SSA* (Routledge, 2020).

Factors driving educational enrolment and attendance: Impact of the 2012 conflict in the north of Mali

André-Marie Taptué

Abstract

This chapter examines the extent to which the 2012 conflict in the north of Mali has affected education and determines the factors that led to children's return to school after the conflict. It finds that the conflict had detrimental effects on education in the north of Mali. Yet in 2016, school-age children who did not leave the north during the conflict were going to school. Findings suggest that assistance to schools, school feeding, and social safety nets such as cash transfers, food stamps, and free food distribution to households played an important role in returning children to school.

Keywords: post-conflict, school rehabilitation, enrolment and attendance, school assistance, Mali

Introduction

Conflicts always have direct human costs that result in loss of life, disability, and displacement of population. In addition, conflicts have detrimental effects on economic development, social sectors, population well-being, and access to public infrastructure such as schools and clinics. For instance, Collier (1999) found that during civil conflicts, annual growth rate is reduced by 2.2 per cent. The *World Development Report 2011* (World Bank, 2011) on conflict, security, and development shows that on average a country that experienced major violence over the period from 1981 to 2005 has a poverty rate 21 percentage points higher than a country that saw no violence. Furthermore, conflict and insecurity prevents children, particularly in primary and secondary education, from enrolling and attending school (Poirier, 2012). Gates et al. (2012) estimated, for instance, that 38 million out of about 230 million children in conflict countries that should have been enrolled in a primary school were not. Furthermore, about 30 per cent of the primary school-age children that were not enrolled in primary education lived in conflict-affected countries. Lai and Thyne (2007) found that during civil war a state

reduces its educational expenditures by 3.1 to 3.6 per cent each year. These findings confirm that conflicts disrupt education enrolment as well as states' general ability to provide social services to their citizens. Using panel data of 41 countries involved in internal wars from 1960 to 2003, Chen et al. (2008) show that when the end of war marks the beginning of lasting peace, recovery and improvement in economic performance, health, education, and political development are indeed significant.

The objective of this chapter is twofold: we first seek to assess the impact the 2012 conflict had on education in the north of Mali, and second to identify factors that have driven children's enrolment and attendance at school in the aftermath of the crisis in 2016.

Mali has been facing a latent insecurity crisis since 2012, when separatist groups occupied the northern regions, leading to a military coup and ending two decades of stability. During the conflict, the whole country, and the northern regions in particular, faced great consequences. Public facilities were destroyed, material looted, access to market blocked, commodity prices increased, and so on. The education sector in particular was significantly affected, with the fleeing of teachers, the looting of school material, the destruction of buildings, and territorial control by armed groups. A World Bank study conducted in September 2015 highlighted that different facilities existed in the north, but were not functional.[1] This included six maternal schools, 12 primary schools, 10 colleges, 4 *lycees*, and 12 *medersa*. According to 45.5 per cent of local authorities, access to education worsened compared with the situation before the conflict. During the period of the conflict, and until 2015, the northern regions were abandoned by central government, with dramatic reduction of public investments. The external funding to the basic education budget, which was mostly allocated to investment, dropped from 18 per cent of the total in 2011 to zero in 2012 and 2013 before increasing to just 5 per cent in 2014, and 7.2 per cent in 2015.

Between 2011 and 2013, the number of classrooms used for teaching at primary school decreased by 48 per cent, the number of teachers by 57 per cent, and the number of students by 65 per cent (Ministry of National Education, 2011, 2013). The annual growth rate of public expenditure in education fell to minus 13 per cent in 2012, and minus 1 per cent in 2013, but moved above zero (14 per cent) in 2014 with reconstruction and rehabilitation of schools and other facilities by development agencies, non-governmental organizations, and the communities. However, the situation had still not returned to normal by the first semester of 2016. The absence rate of teachers increased from 10 per cent in January to 15 per cent in May 2016. By May 2016, more than 90 per cent of schools had not received the reconstruction and rehabilitation needed (World Bank, 2016). Thus, the government is facing challenges in returning students to school and maintaining attendance. Absence of teachers, lack of material, and decay of infrastructure are major challenges in re-establishing normal functioning of schools in northern Mali, and further

achieving the Sustainable Development Goal on education for the country as a whole.

Despite those challenges, education enrolment as well as attendance in northern Mali seems to have improved in 2016. It significantly increased compared with its level in 2013–2014, and was even close to passing the level of enrolment and attendance before the crisis. This means that children who stayed in the north during the conflict were going to school. Besides the impact of the conflict, this chapter investigates incentives that motivate children to go to school amid precarious security.

The rest of the chapter is organized as follows: the next section analyses the impact that the conflict had on basic education in the north of Mali. I then present different programmes implemented to mitigate the impact of the 2012 conflict and analyse how implementation of those programmes affected children's enrolment and attendance in 2016. The final section concludes.

Impact of the 2012 conflict on education

Impact on primary education

According to official statistics in the Annual Statistical Yearbooks, the national gross enrolment rate for primary education in Mali increased from 65.9 per cent in 2004–2005 to 70.1 per cent in 2013–2014.[2] It reached 82 per cent in 2008–2009 and declined slightly to 79.5 per cent the next year, then increased again to 81.5 per cent in 2010–2011 when it started to continuously decline. This declining trend can be attributed to the great drop in the three northern regions in 2011–2012. Between 2010–2011 and 2011–2012, the gross enrolment rate fell from 98.5 per cent to 38.7 per cent in Gao, from 54.6 per cent to 31.1 per cent in Kidal, and from 77.2 per cent to 59 per cent in Timbuktu. In 2013–2014, the gross enrolment rate in Gao had not yet returned to its level before the conflict, in contrast to Kidal and Timbuktu (Figure 4.1).

Other detrimental effects

The first impact of the 2012 conflict in the north of Mali as in any social conflict was the displacement of population inside and outside the country. Overall, 41.3 per cent of households in the north were affected by the displacement of at least one of their members. These households represent 46.5 per cent in Timbuktu, 27.2 per cent in Gao, and 22.4 per cent in Kidal. The United Nations Office for Coordination of Humanitarian Affairs (OCHA, 2014) estimated that 330,000 people fled to the south of Mali and 170,000 fled to neighbouring countries from the north of Mali between January 2012 and June 2013, accounting for approximately 36 per cent of the total population in the north.
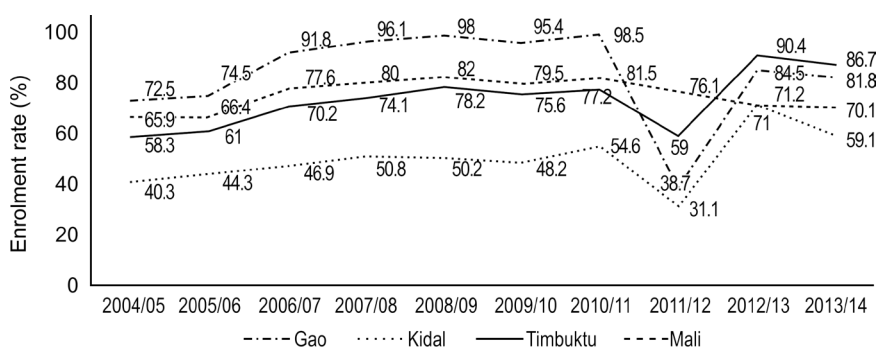
Figure 4.1 Trend of gross enrolment rate at primary school
Source: Annual Statistical Yearbooks (Ministry of National Education, 2004–2015)

It is likely that displacement affected mainly school-age children. To explore the possibility of children selectively leaving conflict areas, we examine the population age structure for the north. Prior to the crisis, the population pyramid for the three regions was comparable to that of the entire country. We notice that in 2015 the population pyramid for the north, as derived from our survey (see below), changed considerably. This difference in the structure of the pyramid reflects the vast population movements that occurred during the crisis. The biggest change occurs in the categories of children aged 10 or younger (Figure 4.2). If displacement is non-random, and access to school positively affects the probability of remaining in or having returned to the north, the change in the population's age structure might explain the higher attendance rates for the north. This, however, would constitute an artificial, rather than a real, boost in the primary school attendance rate for the north. This is because the school attendance rate is calculated as a fraction, with number of children going to school in the numerator and the total number of primary school-age children in the denominator. Therefore, as the denominator of school-age population fell for the north, the attendance rate could be artificially inflated if the children that remained were the ones already going to school.

The number of students in formal school excluding *Medersa* declined dramatically during the crisis. In Gao, the number of students enrolled in 2011 more than halved in 2012, and more than quartered in 2013 before increasing in 2014. Kidal was most affected with no children present at formal school in 2012 and 2013. The impact of the crisis was less pronounced on education in Timbuktu, where the number of students increased slightly between 2011 and 2012 before declining in 2013 (see Figure 4.3). It is likely that some students fled to the rural area in Timbuktu, where it was possible to go to school during the first year of the crisis before being obliged to leave when the
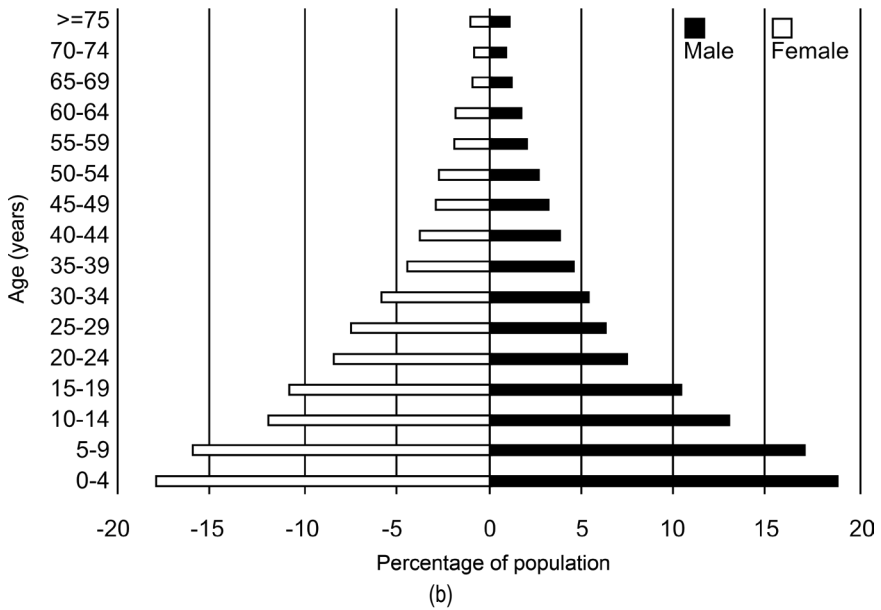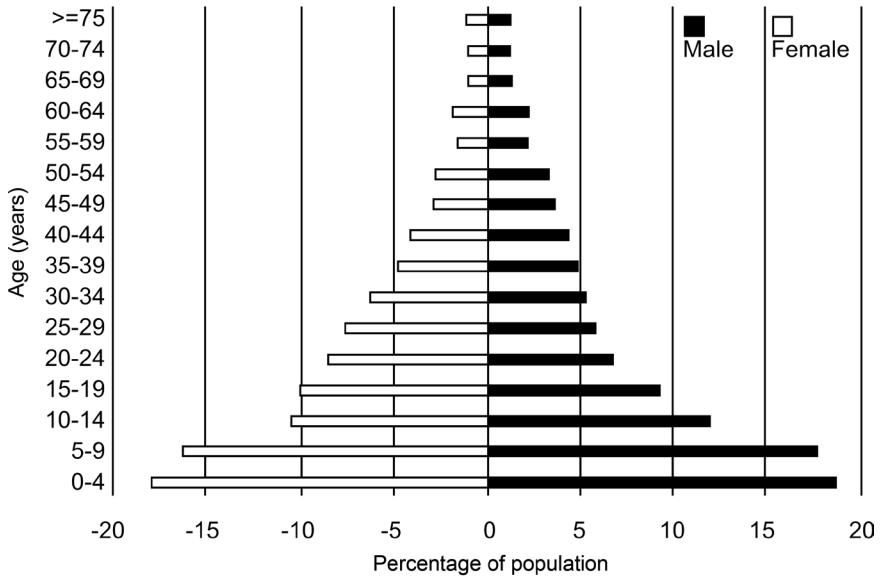
Figure 4.2 Population pyramids before and after the 2012 crisis: (a) 2009 population pyramid north Mali (Gao, Kidal, Timbuktu); (b) 2009 population pyramid Mali; (c) 2015 population pyramid north Mali (Gao, Kidal, Timbuktu); (d) changes between 2009 and 2015 population pyramids for north Mali
Source: Author

(*Continues*)

(c)

(d)
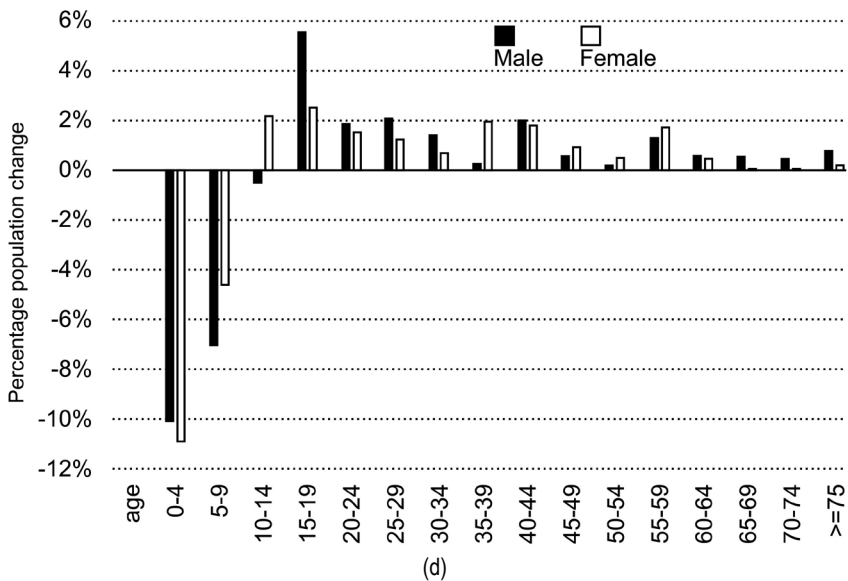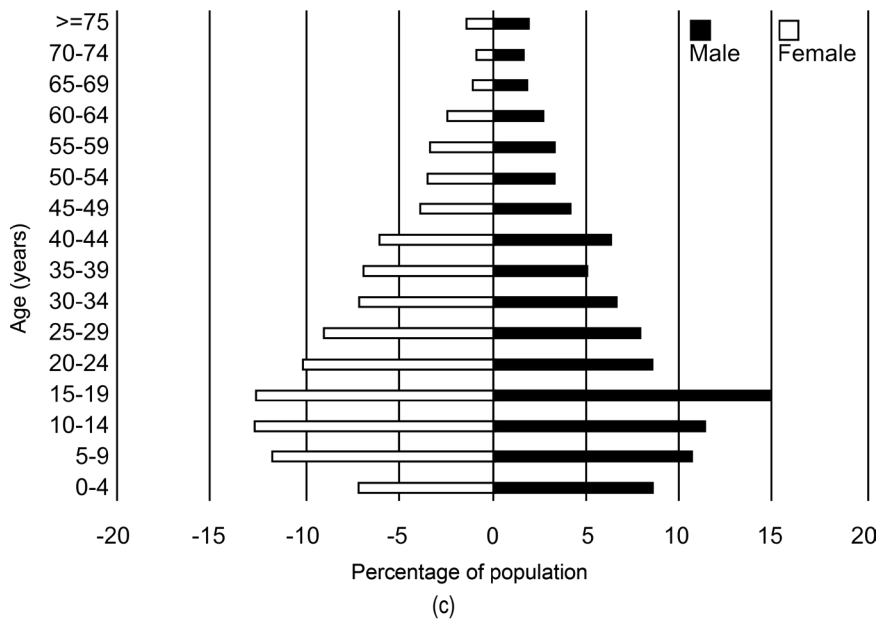
Figure 4.2 (*Continued*)

conflict became intense and reached those localities. It is worth noting that the number of students has increased in Gao and Timbuktu since 2014 despite sporadic insecurity events. In Kidal, formal schools were not effectively open in 2014, but students could enrol in Islamic and community schools under the supervision of armed groups.
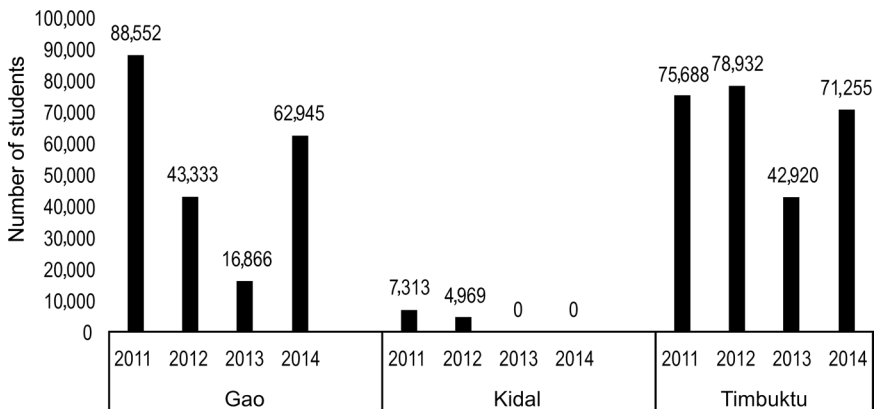
Figure 4.3 Number of students during and after the crisis
Source: Annual Statistical Yearbooks (Ministry of National Education, 2004–2015)

The intensity of the conflict and actions of jihadists against formal schools obliged schools to close and teachers to flee the regions. They did not resist in Gao, where their number dropped from 1,806 in 2011 to 1,194 in 2012, and to 229 in 2013. However, teachers have been returning to Gao since 2014. The trend is different in Kidal where no teacher stayed in 2013 and 2014. In Timbuktu the number of teachers first increased between 2011 and 2012 from 1,635 to 1,937, similar to the number of students, but followed a declining tendency to reach 1,330 in 2013 and 461 in 2014, while the number of students was increasing (Figure 4.4).

The conflict did not significantly modify the student–teacher ratio in Gao, where it declined from 49 in 2011 to 36 in 2012, then increased to 56 in 2013. However, the ratio fell to 34 in 2014, showing that the number of teachers in 2014 increased faster than the number of students. In Timbuktu, it seems that the number of teachers increased faster than that of students between 2011 and 2012, such that the student–teacher ratio dropped from 46 to 41. Between 2012 and 2013, the decline in the number of students was higher than that of the number of teachers, which also induced a decline in the student–teacher ratio from 41 to 32. The ratio then moved to 155 in 2014 when the number of students in the region increased and the number of teachers decreased.

Another impact of the crisis on the education sector was the cancellation of external grants and loans for basic education in 2012 and 2013. The external funding for basic education represented one-third of public expenditure in this sector in 2004 and 2006. However, it dropped gradually to 19.2 per cent in 2010, 18.6 per cent in 2011, and was entirely suspended in 2012 and 2013 during the conflict. Funding resumed in 2014 and 2015 representing, respectively, 5 per cent and 7.2 per cent of public expenditure in the sector, which is still very low compared with its level in 2011 before the crisis. Despite its large share of total public expenditure, spending on basic education in 2012 was
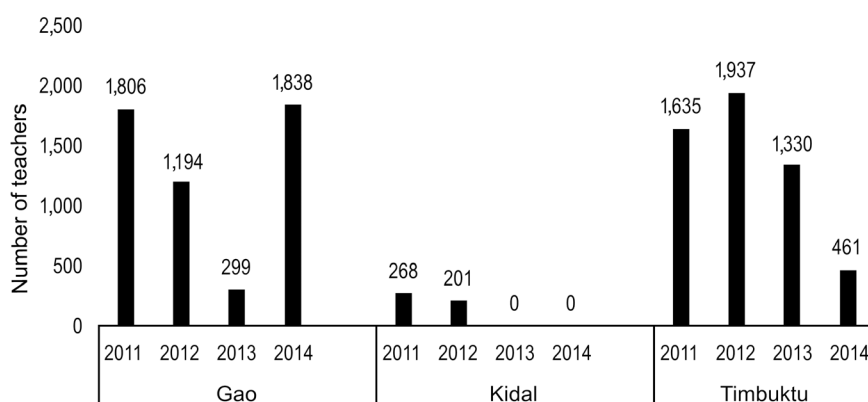
Figure 4.4 Number of teachers during and after the crisis
Source: Annual Statistical Yearbooks (Ministry of National Education, 2004–2015)

lower than that in 2011. Spending decreased by 13.1 per cent in 2012, resulting in the suspension of several activities in the sector. In fact, investment in the education sector was suspended in 2012 and 2013, and the budget allocated to salaries and functioning. Rehabilitation of schools and construction of new classrooms were financed by emergency projects from development agencies such as the World Bank. Fortunately, the amount allocated to basic education has experienced an increase since 2014, with the return of external funding and an increase in investment.

Data and descriptive statistics

Data

The study is based on cross-sectional survey data that include household, school, and village level characteristics, and focuses on the sub-sample of children aged 5–17 years. Data were collected as part of several waves of surveys undertaken in 672 households in 56 localities in the north of Mali from January 2016 to January 2017 in the framework of the monitoring of economic recovery, and study of peacebuilding. Villages were randomly selected in communes grouped in *cercles* and regions according to population activities, their characteristics, and displacement state due to the conflict. Households were randomly selected in villages, and the number of households per region was proportional to their sizes, and this was adjudged to result in a significant number of households selected in Kidal. Twelve households were randomly selected in each locality for the interview. Every school in the localities as well as local authorities were also interviewed. The household surveys collected information on demographic characteristics, household assets (that are used to construct the indicator of welfare), economic activities, level of education, school enrolment, and attendance for all children aged 5–17 years old. Table

Table 4.1 Data collection sample per region

Region	Location	Sample size	Villages/quarters covered	Schools
Gao	Rural	180	15	13
	Urban	48	4	4
	Total	*228*	*19*	*17*
Kidal	Rural	72	6	1
	Urban	48	4	3
	Total	*120*	*10*	*4*
Timbuktu	Rural	264	22	21
	Urban	60	5	5
	Total	*324*	*27*	*26*
Total	Rural	516	43	35
	Urban	156	13	12
	Total	*672*	*56*	*47*

Source: Author

4.1 summarizes details on data collection. Out of the 56 localities where survey data were collected, only 47 had a school. All the households and schools originally planned were surveyed. The distribution of the surveyed schools offers some early insight into the regional disparities that exist with respect to access to education. In Gao and Timbuktu, respectively, 90 and 95 per cent of localities had a school. In Kidal, only 4 out of the 10 locations covered had a school.

Descriptive statistics

The variables of the study are listed alongside their descriptive statistics in Table 4.2. The analysis is conducted for children of primary and secondary school age (5–17 years old) in Mali. The explanatory variables are divided into four sets – child, household, school, and village – based on the conceptual framework presented above.

Child and household characteristics

The sample of children aged 5–17 years old is composed of 49 per cent boys, and 51 per cent girls. Just 2 per cent of those children had worked for a wage during the 7 days before the survey. Almost three-quarters of those children are children of the household head or his or her spouse, and 89 per cent have a child sibling in the household. Twenty-nine per cent of children who are enrolled have a canteen in their school, and 79 per cent of them eat a meal in those canteens. The main reason for not eating school meals is instruction from parents. In terms of ethnic group, 47.7 per cent of children are Sonrai,

Table 4.2 Descriptive statistics for variables of the analysis

Type	Variable	Obs.	Mean	Std. dev.	Min	Max
Outcomes	Enrolled in school and aged 5–17	1304	0.52	0.50	0	1
	School attendance rate last 30 days	630	0.97	0.16	0	1
Covariates						
Child level						
	Child is a girl	1,304	0.51	0.50	0	1
	Age	1,304	11.19	3.70	5	17
	Age square	1,304	138.93	82.71	25	289
	Child has a sibling in the household	1,304	0.89	0.32	0	1
	Child is the household head's or household head's spouse's child	1,304	0.75	0.44	0	1
	Child worked for salary the last 7 days before the survey	1,304	0.02	0.12	0	1
	Child's school has a school canteen	1,304	0.29	0.45	0	1
	Child eats at the school canteen	1,304	0.23	0.42	0	1
	Child is Sonrai	1,304	0.48	0.50	0	1
	Child is Tamasheq	1,304	0.38	0.49	0	1
Household level						
	Household head is a woman	1,304	0.11	0.31	0	1
	Household head has no education	1,304	0.71	0.46	0	1
	Household head has primary education	1,304	0.12	0.33	0	1
	Household head has secondary or higher education	1,304	0.17	0.38	0	1
	Household members feel safe when going out alone during day	1,304	0.68	0.47	0	1
	Household head feels children are safe on road to school	1,304	0.48	0.50	0	1
	Household head trusts teachers	1,304	0.80	0.40	0	1

(*Continues*)

Table 4.2 (*Continued*)

Type	Variable	Obs.	Mean	Std. dev.	Min	Max
	Food insecurity index	1,297	2.55	0.73	1	3
	Quintile of poverty	1,295	3.18	1.33	1	5
	Household head worked for a wage the last 7 days before the survey	1,304	0.16	0.37	0	1
	Household head works in the agriculture sector	1,304	0.34	0.47	0	1
	Household head works in the livestock sector	1,304	0.20	0.40	0	1
	Household head works in administration	1,304	0.11	0.31	0	1
	Household has received free food distribution	1,304	0.57	0.49	0	1
	Household has received monetary stamp for food	1,304	0.11	0.32	0	1
	Household has received cash transfer	1,304	0.19	0.39	0	1
	Household's village has been attacked	1,304	0.17	0.37	0	1
School level						
	School has student parents' association	1,304	0.73	0.45	0	1
	School has management committee	1,304	0.85	0.36	0	1
	Absence rate of teacher	1,058	0.18	0.28	0	1
	Ratio of classes with blackboard in good quality	1,020	0.43	0.42	0	1
	Ratio of classes with sufficient tables	1,304	0.64	0.39	0	1
	School has canteen	1,304	0.67	0.47	0	1
	School has multi-grade classes	1,304	0.27	0.44	0	1
	School has double vacation	1,304	0.15	0.36	0	1
	School offered catch up courses	1,304	0.43	0.50	0	1
	Good physical state of school	1,304	0.10	0.30	0	1
	Teaching language is French	1,304	0.58	0.49	0	1

(*Continues*)

Table 4.2 (*Continued*)

Type	Variable	Obs.	Mean	Std. dev.	Min	Max
	School closed during the conflict	1,304	0.21	0.41	0	1
	Teacher left during the conflict	1,304	0.83	0.38	0	1
	School has fewer students due to the conflict	1,304	0.53	0.50	0	1
	School has more students due to the conflict	1,304	0.16	0.37	0	1
	School buildings affected during the conflict	1,304	0.56	0.50	0	1
	School materials affected during the conflict	1,304	0.59	0.49	0	1
	School financial resources affected during the conflict	1,304	0.60	0.49	0	1
	School received assistance in 2014–2015	1,304	0.53	0.50	0	1
	School received assistance in 2015–2016	1,304	0.38	0.49	0	1
Village/quarter level						
	A school exists in the village/quarter	1,304	0.86	0.35	0	1
	Village/quarter is in Gao	1,304	0.45	0.50	0	1
	Village/quarter is in Timbuktu	1,304	0.50	0.50	0	1
	Village/quarter is in an urban area	1,304	0.17	0.37	0	1

Source: Author.

38.1 per cent are Tamasheq, and the rest belong to small groups such as *Peuls*, *Arabe*, or *Bambara*. Around 86 per cent of children live in an area where a school exists and is functional, while 83 per cent live in a rural area and 17 per cent in an urban area.

Only 11 per cent of households sheltering children who are enrolled in school are headed by a woman. Just 16 per cent of household heads with children enrolled at school had worked for a wage over the seven days before

the survey. Considering the education level of household heads with children enrolled in school, 71 per cent do not have any level of education, 12 per cent have primary education, and 17 per cent secondary or higher education. Still within households with enrolled children, 68 per cent of household heads feel secure while going out alone during the day, 48 per cent feel that their children are secure on the road to school, and 80 per cent trust their children's teachers. Furthermore, heads of these households practise different activities, with 34 per cent in agriculture, 20 per cent working with livestock, 20 per cent in administration, and the rest dispersed in transport, craft, and domestic work. Concerning social protection programmes implemented to reinforce population resilience, 57 per cent of households with children enrolled in school receive free food distribution, 11 per cent receive food stamps, and 19 per cent cash transfers. This support to households has helped reduce exposure to food insecurity where the food security index is set above 2.5.

School characteristics

The 2012 conflict greatly affected schools in the north of Mali. School buildings were destroyed and occupied, and windows, doors, and roofing sheets stolen from most of them. For schools that are operational, 18 per cent of teachers were absent in January 2016; only 64 per cent of classes had enough tables for students; and just 43 per cent of classes had a blackboard of good quality. The physical state was judged good for only 10 per cent of schools.

In this hard context, some schools have adopted different strategies to cope with the situation and to keep classes open. In terms of school management, 73 per cent of schools have a student-parents' association, 85 per cent have a school management committee, 67 per cent offer school meals through school canteens, and 43 per cent offered catch-up classes after the conflict. Overall, 27 per cent of schools contain multi-grade classes and 15 per cent offer a double vacation, which increases education supply. French is the main teaching language for 58 per cent of schools, and Arabic and Bambara, among others, are used in the rest of the schools. During the 2014–2015 school year, 53 per cent of schools received assistance to improve management and functioning. At the beginning of the 2015–2016 school year, 38 per cent of schools received assistance.

Enrolment and attendance

In January 2016, the enrolment ratio for children aged 5–17 years was estimated at approximately 52.5 for girls, 51.7 for boys, and 52.1 per cent for both. Over half of children who did not leave during the conflict or who had returned were therefore enrolled in school. Enrolment ratios are higher in the wealthiest households. In the first welfare quintile, advantage was given to boys while in the last two quintiles enrolment ratios were higher among girls (Figure 4.6). Less than 15 per cent of children lived in communities without a

school. In those communities without a school, children were also less likely to enrol compared with their peers in communities with a school, where almost 60 per cent of children were enrolled in basic education (Figure 4.7). This is understandable because in the context of prevalent insecurity, children cannot leave their community for school.

Age effect is difficult to capture, with enrolment ratios fluctuating a lot between 6 and 17 years old. For girls, enrolment ratios increased from 35.4 per cent at age 5 to 54.6 per cent at age 6, and fell to 50.4 per cent at age 7. They follow the same variation from one age to another, and reach 48.2 at age 17. Ratios for boys follow a similar trend, beginning with 29.4 per cent at age 5, increasing to 66.8 per cent at age 6, before decreasing to 60.8 per cent at age 8, and following the same pattern until they fall to 15.1 per cent at age 17 (Figure 4.8).

At the individual level, average children's attendance rate is very high. Regardless of gender and presence of schools in the community, children enrolled in schools had attended classes for more than 95 per cent of the last 30 days. The main reasons for non-attendance, if any, were the closure of the school, child sickness, insecurity, school under construction, lack of means (poverty), lack of teachers, and others such as children's low interest in a few cases.

All children of five years old enrolled in school had attended classes for the last 30 school days. The attendance ratios for boys decreased by 5 percentage points to 0.95 for children of 6 and 7 years old, fluctuated between 0.98 and 0.99 for 8 to 16 years old, and were 1.0 for children of 17 years. The attendance ratio for girls follows the same pattern (Figure 4.5).

Econometric analyses

The main objective of this study is to bridge the evidence gap on the factors and determinants of enrolment and attendance after a conflict, and amid intermittent insecurity events.
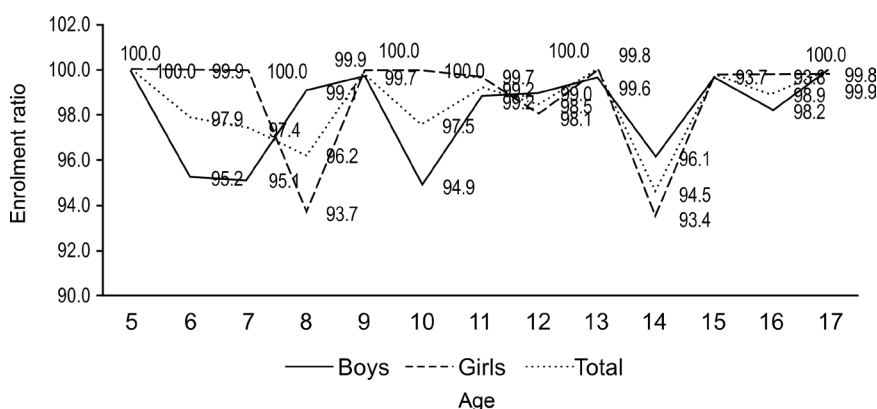
Figure 4.5 Enrolment ratio by gender and quintile of welfare
Source: Annual Statistical Yearbooks (Ministry of National Education, 2004–2015)
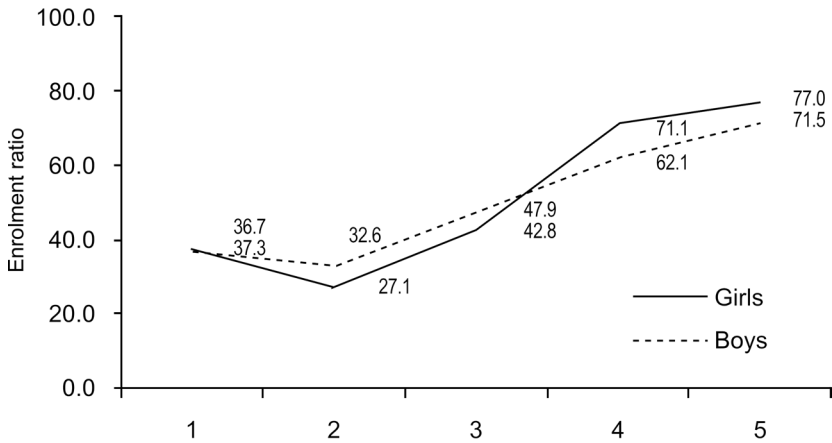
Figure 4.6 Enrolment ratio and percentage of children
Source: Annual Statistical Yearbooks (Ministry of National Education, 2004–2015)
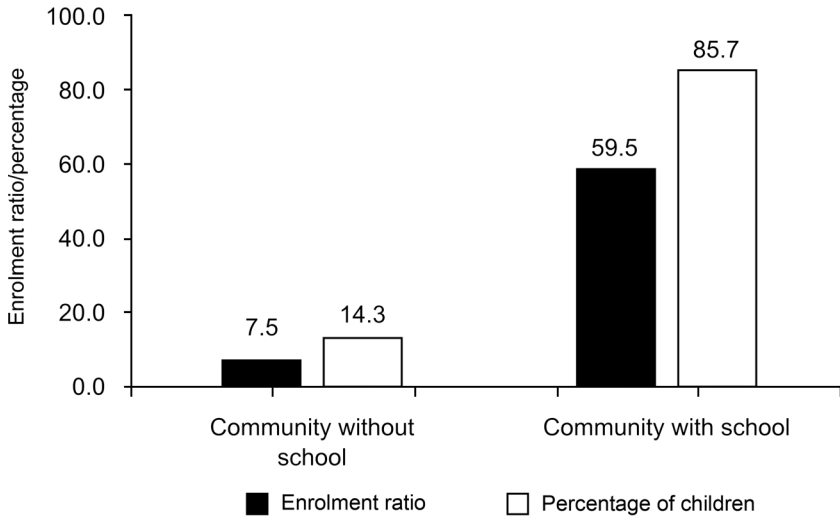
Figure 4.7 Enrolment ratio by gender and age
Source: Annual Statistical Yearbooks (Ministry of National Education, 2004–2015)

The main research questions focused on basic education in the north of Mali in 2016:

- What are the drivers of enrolment and attendance in basic education?
- What impact do school feeding programmes, assistance such as cash transfers, food insecurity, and feelings of insecurity have on basic education enrolment and attendance?
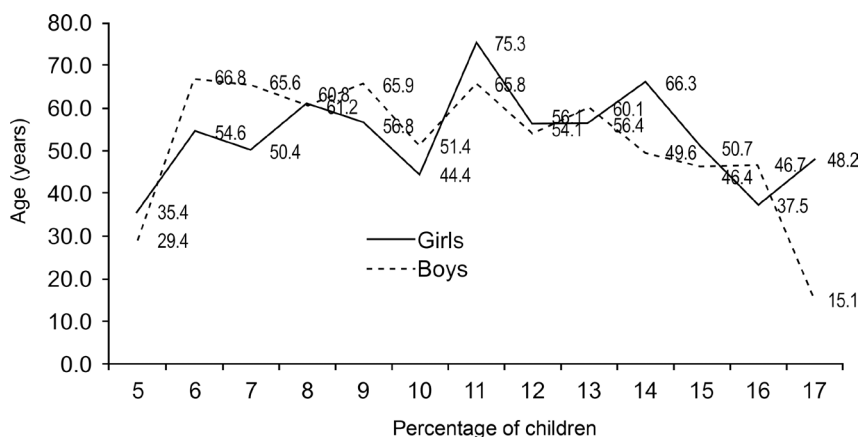
Figure 4.8 Attendance ratio by age and gender
Source: Annual Statistical Yearbooks (Ministry of National Education, 2004–2015)

Issues and hypotheses

In the aftermath of conflicts, conditions are not always favourable for children to return to school. Opportunities and jobs are scarce and limit households' ability to send their children to school. There is an opportunity cost which impacts the decision to send children to school. Children can participate in the job market to financially support their family. Insecurity is another risk for children on their journey to school, and even at school. In that case incentives such as school meals are the main determinants for children's enrolment (Hadley, 2010). Some households' characteristics such as trust in teachers, food insecurity, poverty status, activity of the household head, and his or her education and gender may also invert the trend. The school environment related to the quality of blackboards, number of tables for students, state of buildings and materials, presence of teachers, support to school including school canteens, assistance with teaching material, kits for students, and student–teacher ratios can affect enrolment and attendance through the quality of teaching.

Hence, reconstruction or rehabilitation of school infrastructure and improvement of facilities are likely to have substantial and positive impact on school outcomes (Kim et al., 1998; Burde and Linden, 2013), but are not enough. Safety net projects to reinforce resilience of households are necessary. They constitute an incentive for parents to send their children to school. Generally, this incentive is achieved through an income transfer, and through an enhancement of the services provided at school (Gelli et al., 2014). Cash transfers to households and school meals are two examples of these services. Krishnaratne et al. (2013) show that conditional cash transfers increase enrolment and attendance with stronger effects among the poorest children. Kristjansson et al. (2007) show significant improvements in

attendance for students receiving meals compared with students in control groups.

Variables and estimation strategy

The outline of the hypotheses stated above directs the choice of covariates for the regressions. An indicator of child labour is included at the child level. Gender, age, and square of age are included in socio-demographic characteristics. Existence of siblings in the household, and information on whether the child belongs to the household head or his or her spouse, are used to test whether parents had to make a choice. Finally, ethnicity of the child is integrated among variables at the child level. The household level variables encompass a range of socio-economic dimensions including gender and education of the household head, feeling of security, trust in teachers, activity sector of household head, food insecurity, and quintile of welfare. Other variables are related to the benefits of free food distribution, food stamps, and cash transfers. The data also include some variables at the school level focusing on the existence of a school canteen, impact of the conflict on buildings and teaching materials, assistance received to improve functioning, the school management committee, absence rate of teachers, classroom environment including quality of blackboards and tables for students, supply of a double vacation, and multi-grade classes. Village level indicators include the residential area and the existence of school in the community.

Estimation is conducted through a multivariate regression analysis. Enrolment is measured with a dichotomous variable taking 1 if the child is enrolled at school in January 2016, and 0 if not. Attendance rate is captured with an ordered categorical variable calculated as the number of school days the child has attended in the last 30 days before the survey. This number is normalized for the variable to fit in [0–1]. To model enrolment and attendance rate, we use, respectively, the logit and ordered logit regression.

Due to collinearity, some variables are excluded from the model. For instance, existence of a school canteen implies the existence of a school, and child eating at a school canteen means the school canteen exists. Hence, we retain only child eating at school among those three variables. We also find significant correlation between closing of school during the conflict and its actual physical state on one side, and the number of students, fleeing of teachers during the conflict, and impact of the conflict on school materials on the other. Thus, only variables of closing of schools during the conflict and their physical state are kept in the model. The sample is constituted by 1,304 children aged between 5 and 17 years old for enrolment and 630 for attendance.

Results

Results derived from the econometric analysis are presented in Tables 4.3 and 4.4, respectively, for the logit and ordered logit models.

Table 4.3 Statistical regression of the logit model for school enrolment for school attendance in northern Mali in 2016 for children aged 5–17 years

Variables	Enrolment (Logit)			
	Coef.	Std. err.	P	Marginal effect
Child is a girl	−0.05	0.14	0.72	−.0127259
Age	0.63*	0.14	0.00	.1574589
Age-squared	−0.03*	0.01	0.00	−.0076748
Child has a sibling in the household	0.16	0.24	0.51	.0401977
Child is the household head's / partner's child	0.39**	0.17	0.02	−.4232066
Child worked for salary the last 7 days before the survey	−2.42*	0.69	0.00	.0963997
Child is Sonrai	0.47***	0.26	0.06	.1181259
Child is Tamasheq	0.05	0.25	0.86	.0112688
Household head is a woman	0.52***	0.29	0.07	.1277853
Household head has no education	−0.28	0.23	0.23	−.0700248
Household head has secondary or higher education	0.44	0.33	0.18	.1091183
Household members feel safe when going out alone during day	0.01	0.17	0.96	.0022999
Household head trusts teachers	0.42***	0.23	0.07	.1046807
Food insecurity index	−0.11	0.12	0.34	−.0274041
Quintile of welfare	0.34*	0.07	0.00	.0844511
Household head works in the agriculture sector	0.03	0.20	0.89	.0067939
Household head works in the livestock sector	−0.60**	0.29	0.04	.1464571
Household head works in administration	0.16	0.31	0.60	.0408062
Household has received free food distribution and cash transfer	0.12***	0.23	0.06	.0300166
Household's village was attacked in the 30 days before the survey	−0.09	0.19	0.62	−.0233386
School has management committee	1.18	0.84	0.16	.2757882
School has multi-grade classes	0.50*	0.20	0.01	.1246024
School offered catch up courses	0.23	0.18	0.18	.0584889
Poor physical state of school	−0.32	0.25	0.20	−.079317
School closed during the conflict	−0.55*	0.22	0.01	−.1361299
School received assistance in 2015–2016	0.35***	0.19	0.06	.0876002

(Continues)

Table 4.3 (*Continued*)

Variables	Enrolment (Logit)			
	Coef.	Std. err.	P	Marginal effect
School exists in the community/village	0.22	0.96	0.82	.0551197
Urban	0.70*	0.27	0.01	.1701295
Gao	1.77*	0.36	0.00	.4147051
Timbuktu	1.51*	0.34	0.00	.3604334
Intercept	−7.48*	1.06	0.00	
N	1291			
F(1, 1261)	9.49			
School has a canteen	0.71*	0.13	0.00	
Intercept	−0.39	0.10	0.00	
N	1304			
F(1,303)	32.24			

The coefficient is significant at * 1 per cent; ** 5 per cent; *** 10 per cent

Child level variables

With a negative coefficient when the child is a girl (though not significant), the logit model shows that girls are less likely than boys to enrol in basic education in the north of Mali. This result is consistent with social norms in Mali that perceive a low level of return from girls attending school; instead girls are seen as mainly qualified for domestic work. However, being a girl has a significant positive impact on school attendance, confirming the assumption that once enrolled, girls are more assiduous at school than boys. Age and age-squared are strongly significant and have opposite signs for enrolment, confirming the complex relation between schooling outcomes and age. Age has a positive impact on enrolment and age-squared has a negative effect. So, parents are more likely to enrol their children in school in a context of insecurity if they are older, but only up to a point. On the other hand, age does not have a significant impact on attendance.

Having a sibling in the household has a positive impact on the enrolment (though not significant at 1, 5, or 10 per cent). We thought the household head would make a choice, but in a context of insecurity, having a sibling seems to be an advantage, as children can walk together to school. But children who are enrolled in school and have a sibling are negatively and significantly affected in terms of attendance. When the child is the offspring of the household head or his or her partner, it is likely that the child will be enrolled in school. But being in that situation for a child does not influence his or her willingness to attend school.

Table 4.4 Statistical regression of the ordered logit model for school attendance in northern Mali in 2016 for children aged 5–17 years

Variables	Attendance (OLogit)			
	Coef.	Std. err.	P	Marginal effect
Child is a girl	0.86**	0.40	0.03	−.0009444
Age	−0.42	0.38	0.27	.0004346
Age-squared	0.02	0.02	0.21	−.0000231
Child has a sibling in the household	−1.07***	0.61	0.08	.0007637
Child is the household head's /partner's child	0.67	0.46	0.14	−.0008377
Child worked for salary the last 7 days before the survey	9.27*	1.29	0.00	−.0010759
Child is Sonrai	0.83	0.60	0.17	−.0009936
Child is Tamasheq	1.66**	0.81	0.04	−.001231
Household head is a woman	−0.54	0.61	0.38	.0007018
Household head has no education	0.63	0.70	0.37	−.0007058
Household head has secondary or higher education	0.65	0.83	0.44	−.0005915
Household members feel safe when going out alone during day	0.08	0.55	0.89	−.000082
Household head trusts teachers	0.59	0.79	0.45	−.0007785
Food insecurity index	−0.30	0.43	0.48	.0003136
Quintile of welfare	0.51*	0.19	0.01	−.0005329
Household head works in the agriculture sector	−0.67	0.55	0.22	.00075
Household head works in the livestock sector	−0.15	0.78	0.85	.000161
Household head works in administration	0.27	0.73	0.71	−.0002574
Household has received free food distribution	0.39	0.81	0.63	−.0003549
Household has received cash transfer	−0.09	0.65	0.89	.000093
Household's village was attacked in the 30 days before the survey	−0.38***	0.70	0.06	.0004592
School has management committee	0.69	0.92	0.45	−.0009088
School has a canteen	1.44*	0.54	0.01	−.0024038
Absence rate of teachers	−4.30*	0.80	0.00	.0044599
Student–table ratio	−1.54***	0.87	0.08	.0015957
Teaching language is French	1.06***	0.62	0.09	−.0014134
School received assistance in 2015–2016	0.42	0.62	0.50	−.0004351

(*Continues*)

Table 4.4 (*Continued*)

Variables	Attendance (OLogit)			
	Coef.	*Std. err.*	*P*	*Marginal effect*
Urban	−2.43*	0.95	0.01	.0058596
Gao	2.78*	1.06	0.01	−.0034714
Timbuktu	1.11	1.26	0.38	−.001238
N	590			
F(30, 560)	14.52			

The coefficient is significant at *1 per cent; **5 per cent; ***10 per cent
Source: Author.

When the child is working for a wage, it is less likely that he or she will be enrolled in school. In fact, having worked for a wage for the seven days before the survey is negatively and significantly associated with enrolment (p=0.00) (Table 4.3). But if the child is enrolled, and is working, it is more likely that he or she will attend classes. Belonging to the Sonraï or Tamasheq ethnic group has a positive effect on enrolment compared with belonging to other ethnic groups such as Peul who are mainly animal breeders that always move with their livestock, and are much more insecure. Being a Sonraï does not affect attendance, but being a Tamasheq does.

Household level variables

Having a woman as the head of household has a positive and significant impact on enrolment compared with where the head is a man. Gender of the head of household does not have a significant impact on attendance. As expected, when the head of the household has no level of education, this reduces the chance of their children being enrolled in school, and when the head has a secondary or higher level of education, children are more likely to go to school. The level of education of the head of household has no impact on attendance.

The household head feeling that its members are safe when going out alone during the day has no significant impact on enrolment and attendance. When household heads trust teachers, this has a strong positive effect on enrolment (p<0.1), but no significant impact on attendance. When the household lives in a situation of food insecurity, this naturally prevents enrolment of their children in school and limits attendance of those who are enrolled (negative sign of the coefficients in the two models). When the level of household welfare increases, the likelihood of sending their children to school strongly increases (p<0.01) as well as attendance (p = 0.01). This means that poverty prevents households from enrolling their children in school and reduces attendance compared with non-poor households.

When the household head works in the sectors of agriculture or administration, this has a positive effect (though not significant) on children's enrolment in school. But when the head works in the livestock sector, he or she is usually mobile, and the impact is strongly negative and significant on the enrolment of their children in school ($p<0.05$). The sector of activity of the household head does not have a significant impact on child attendance. However, the signs of the coefficients suggest that working in agriculture or the livestock sector may have a negative impact on attendance, while working in administration may have a positive impact.

When the village is attacked, this may have a negative impact both on enrolment and attendance, mainly on attendance where the negative sign indicates a negative impact of the attack.

School and village level variables

Existence of a student management committee (correlated with existence of a student parents' association) might have a positive impact on enrolment and attendance. When schools offer multi-grade classes consisting of two levels of classes in the same room, this has a strong positive impact on enrolment ($p=0.01$). This option gives the possibility that schools will accept more students with fewer classrooms. Also, when schools offer catch-up courses, this may have a positive impact on enrolment. Poor physical state of schools has a negative impact on enrolment such that rehabilitation of schools is an important condition of increasing enrolment. If a school closed during the conflict, it is likely that parents were not prompted to enrol their children leading to strong negative impact ($p=0.01$) on enrolment ratio. When a school receives assistance such as furniture or kits for students and teachers, the impact on enrolment is significantly positive ($p=0.06$). Likewise, when a school has a canteen, the impact is strongly positive on enrolment ($p=0.00$) (Table 4.3) and attendance ($p=0.01$) (Table 4.4).

When a school exists in the village, this has a positive impact on enrolment. The proximity of school reduces the distance for children to travel and has a positive impact in a context of insecurity. Absence of teachers negatively affects attendance ($p=0.01$). Likewise, the student–table ratio has a negative and significant impact on attendance ($p=0.08$) (Table 4.4). That is, when this ratio increases, students are less keen to come to school. In some schools, which opened amid high insecurity in Kidal, teachers were told not to teach in French. This language constraint forced some students to leave school and adopting French as the teaching language has a strong positive impact on attendance ($p=0.09$).

Finally, living in an urban area, in Gao, or Timbuktu, strongly increases the likelihood of enrolment compared with living in a rural area and Kidal. However, students in an urban area are less likely to attend school, attracted by economic activities. In Gao, it is more likely that students will attend classes. The coefficient for Timbuktu is not significant but is positive. The intercept in that model is negative and significant ($p=0.00$). Thus, several other variables probably have negative impact on enrolment in the north of Mali.

Conclusion

This chapter shows that in the aftermath of conflicts, increasing education supply through rehabilitation and reconstruction of schools and assignment of more teachers are necessary to increase enrolment and attendance, but not enough to bring back all children who want to go to school. Safety net projects which reinforce the resilience of households are more likely to increase demand for education and bring children back to school.

We illustrate that result using data collected in the north of Mali in 2016 amid insecurity from the conflict that broke out in the country in 2012. Impacts of the conflict were that schools were destroyed and some occupied, teachers fled outside the regions, material was looted, access to markets blocked, and commodity prices increased, among others. However, activities of reconstruction and rehabilitation of schools and other facilities resumed in 2014 thanks to financing from development agencies, non-governmental organizations, and communities. These projects for school rehabilitation were designed during the emergency in conflict-affected localities to help children return to school. In the meantime, humanitarian agencies, government, the World Bank, and others such as the World Food Programme are supporting safety net programmes comprising free distribution of food, food stamps, cash transfers, and so on, in localities affected by the conflict and those sheltering displaced children. A combination of those measures significantly increased enrolment and attendance in basic education in northern Mali in 2016.

Regardless of rehabilitation and other assistance to schools, the enrolment rate increases more in households which receive at the same time free food distribution and cash transfers. In fact, households allocate the largest share of their cash transfer to food consumption. Therefore, if they receive cash transfers with food, it is likely that they will use part of the money to enrol their children in school. In addition, the presence of school feeding has a positive effect on children's enrolment and attendance.

Notes

1. The baseline survey carried out in September 2015.
2. This rate includes *Medersa* that spans communities and religious schools.

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About the author

André-Marie Taptué is a Principal Development Economist at the African Development Bank (AfDB). Prior to joining AfDB, he worked as Economist at the World Bank, and his works focus on youth employment, poverty, monitoring for policy-based, and impact of public policies. He holds a PhD in Economics from Laval University, Quebec, Canada.

CHAPTER 5

Delving deeper into child poverty and its drivers in sub-Saharan Africa: A multidimensional approach for Nigeria

Ogunniyi Adebayo, Rufai Mistura, George Mavrotas, Olagunju Kehinde, Salman Kayode Kabir, and Fadare Olusegun

Abstract

Using the 2013 Demographic Health Survey data, this chapter revisits the debate on child poverty drivers in Nigeria by employing a multidimensional poverty approach. The empirical results reveal that the poverty measures decrease with the level of dimension used. The majority of children are deprived of at least one of the basic needs. The child poverty indicators revealed that most of the under-five children in Nigeria are living below accepted standards of well-being. The situation is more prevalent in rural areas and the northern region of the country. Our findings therefore suggest that investing in the development and protection of Nigerian children is not a choice, but rather a priority. Investing in children does not mean separating out children with special needs. Instead, this requires an integrated and holistic approach supporting the communities in which children live, their basic needs, and the participatory development which will not only produce active citizens of the future but will also provide sustainable solutions to child poverty in Nigeria, a country under immense demographic pressure in the coming years.

Keywords: child poverty, multidimensional approach, child poverty drivers, Nigeria

Introduction

Giving attention to circumstances surrounding anti-poverty policies that improve the lives of children is not envisioned as special persuasion or pleading on behalf of children. Approaches that integrate all people should be inherent components of the human development agenda without prejudice (Thiry, 2015; Schmidt-Traub et al., 2017; Marotta et al., 2018; Khara et al., 2018). Recurrently, however, children are either neglected or underrepresented in development planning or seen as special cases and thereby 'tagged'

on to the development agenda (Fox, 2015; Sobgui et al., 2018). Meanwhile, accounting for diversity in any policy-making process inevitably introduces different levels of complexity (Stephens and Ruth, 2005; Whiteley and Winyard, 2018). It is noteworthy that the so-called 'special interest groups' increasingly demand attention in development policy. Though clear diversity exists at every level of society, policy processes also have to be adapted to tackle differences (Exworthy, 2008; Whiteley and Winyard, 2018).

The rates of child poverty levels in sub-Saharan Africa (SSA) are still rising despite the progress made over the years in the reduction of child deprivation indicators (Marotta et al., 2018; Khara et al., 2018; Sobgui et al., 2018). In recent years, in the quest to fulfil the Millennium Development Goal of universal primary education, a large majority of African countries has had a tendency to focus on increasing primary school enrolment rates at the expense of preschool enrolment rates. This is evidenced by the substantially low preschool enrolment rates across SSA (Khattak et al., 2017). A report from UNICEF (2009) revealed that one in every three children in the developing world lacks access to basic sanitation, and one in every five has no access to safe drinking water. To start with, it is worth mentioning that the success of the Sustainable Development Goals (SDGs), ranging from ending poverty and hunger to improving health and education, largely depends on the access to good quality child well-being indicators (Khattak et al., 2017; Marotta et al., 2018). Various studies (Biggeri and Mehrotra, 2011; Adetola and Olufemi, 2012; Khara et al., 2018; Sobgui et al., 2018) have also argued that most SSA children have been consistently deprived of at least one of their basic needs over the years (such as education, nutrition, health, improved water, sanitation, and hygiene.

There are five compelling reasons for re-focusing development policy in Nigeria regarding children, a step which is long overdue. First, the disproportionate concentration of poverty among children compared with adults demands explanation and attention due to Nigeria's complexity and ethno-diversity. Second, the fact that children comprise almost half of Nigeria's population makes them a significant population cohort (UNESA, 2015). Third, unlike adults, children cannot necessarily overcome the effects of poverty, short periods of which can go on to affect the rest of their lives. Fourth, the costs of poverty are disproportionately absorbed by children in part due to their structural powerlessness. Fifth, regional disparities play a significant role in this: northern Nigeria has faced conflict and terrorism over the years while southern Nigeria has faced environmental degradation such as oil spillage, flooding, and climate change-related issues that threaten people's livelihoods and quality of life.

The implications of allowing poverty and failing to invest in children go beyond individual children, affecting the health, well-being, and productivity of future generations and of society as a whole. Meanwhile, the prevailing influence of income-consumption poverty methods and thus income-oriented conclusions and solutions, while well known, does merit some deliberation

in relation to child poverty. Therefore, using multidimensional measures of child poverty in a Nigerian context with country representative data can substantially improve our understanding of the key drivers of child poverty in Nigeria.

A considerable body of studies on child poverty has considered a unidimensional approach, with only a few studies having employed a multidimensional approach. The different dimensions of poverty remain a challenge to choosing the appropriate poverty measure and indicators. Given that the choice of a specific poverty measure may have major consequences for poverty reduction, some measures may better identify specific poverty situations than others (Laderchi et al., 2003). Against this background, the purpose of this chapter is to examine the incidence and drivers of child poverty in Nigeria using a multidimensional poverty analysis. We estimate poverty among children less than five years old. The literature on child poverty considered from the multidimensional perspective in Nigeria is rather rare. However, various studies have been conducted on poverty in Nigeria in the past, which include Oluwatayo (2014), and Ikelu and Onyukwu (2016). None of them, however, has quantified the specifics of child poverty and the factors that influence it. An exception is Adetola and Olufemi (2012), which employed multidimensional poverty analysis to examine child poverty in rural Nigeria.

The rest of the chapter is organized as follows. The next section presents a detailed review of the child poverty concept, its measurement, and drivers. We then outline the estimation strategy adopted in this chapter followed by a description of the data. The empirical results emanating from the analysis are presented next followed by a conclusion.

Child poverty, measurement, and its drivers: a review

Child poverty is defined as the non-fulfilment of rights to survival, development, protection, and participation that children require to live a happy life, as spelled out in the United Nations' Convention on the Rights of the Child, 1989. African children are the poorest based on the multidimensional poverty index (MPI) (Alkire and Robles, 2017). Analysis from 30 countries in Africa, including Nigeria, shows that 67 per cent of all children suffer from an average of four types of deprivation crucial to their survival and development (de Milliano and Plavgo, 2014). In most African countries, malnutrition, diseases, and death in children result largely from deprivations of the basic necessities – food and water, shelter, health services, and education – that children require for optimal living (Marotta et al., 2018). Studies have also suggested that the impact of childhood poverty could be transgenerational if deprivation continuous into adulthood (Lundberg, 1993; Smith et al., 1998).

The multidimensional concept of child poverty has been employed in many studies in other countries (Bastos and Machado, 2009; Roelen et al., 2012) to understand the depth and severity of poverty and its drivers among children. Contrary to the conventional methods which tend to understand (child)

poverty through income or expenditure (Wagle, 2005), but fail to account for the multiple deprivations individuals suffer, the analysis of de Milliano and Plavgo (2014) demonstrates that monetary poverty measures are weak predictors of multidimensional child poverty. Although these two approaches are distinct aspects of poverty measures (Nolan and Whelan, 2011), they can be complementary with some merits when measuring child poverty. The merit of the multidimensional approach to measuring child poverty is probably that it captures the overlap between all the various components of deprivation (Roelen et al., 2012).

Research has documented that factors such as socio-economic status (education and/or income) of household decision makers and geographical location of the household are important in determining whether or not a child has access to basic necessities of life such as food and water, shelter, health services, and education. A child's quality of life is directly proportional to the quality of amenities he or she receives. The few studies focusing on child poverty in Nigeria have used nationally representative data such as the Demographic Health Survey (DHS) (Adetola and Olufemi, 2012; Ajakaiye et al., 2014; Rufai et al., 2016; Ogwumike and Ozughalu, 2018). Their results seem to indicate that child deprivation and poverty are most pronounced in the rural sector and in the northern part of Nigeria. The deprivations that lead to children being poor are consistently in education, health, nutrition, protection, water, and sanitation.

Generally, their results follow a similar pattern across socio-economic and geographic variables. However, none of the studies has analysed the severity of child poverty based on age disaggregation of children. Understanding child poverty across their developmental milestones is crucial from a policy perspective. The importance of examining each dimension differs throughout a child's lifecycle, given that children experience different dimensions of poverty as they grow (Nguyen Thi Thu and Jooren, 2017). In addition, the interests and the needs of children are likely to be defined differently (Camfield et al., 2009). The study by Nguyen Thi Thu and Jooren (2017) shows that perceptions of child well-being vary across different age groups and using equal weightings of multidimensional measures appears to undervalue the significance children attach to such indicators as water and sanitation, shelter, and education.

Although there seems to be a general agreement that deprivations happen in various domains with possibilities of correlation between them, the popular debate has been about the best way to measure multidimensional poverty in order to better explain the incidence and severity of poverty among a given population and group. Indices developed by Alkire and Foster (2011) seek to combine, in a single number, information from those various dimensions. Nguyen Thi Thu and Jooren (2017), in a study conducted in Vietnam, show that the MPI developed by Alkire and Foster and the income poverty rate indicators do not fully overlap. While income poverty is concentrated only in the poorest quintile, multidimensional poverty is found across all five income

quintiles. Though some critics see the methodology used in assigning weight as arbitrary (Ravallion, 2011), it is nevertheless flexible in the choice of which dimensions best address countries' specific situation (Alkire, 2008).

Generally, the construction of an MPI requires, first, understanding the direction of the aggregation and, second, the weighting of the different dimensions. Dimensions can be aggregated across individuals or individuals aggregated across dimensions (Ezzrari and Verme, 2012). The methodologies and results from either approach are not the same. Various methods have been used to identify dimension-specific weights. Regardless, the weight choice still requires following a standard criterion (Ezzrari and Verme, 2012), and there is no justification for saying one is superior to the other. The study by Njong and Ningaye (2008) compares three approaches: multiple correspondence analysis (MCA), Principal Component Analysis (PCA) (the approach used by Klasen, 2000; Sahn and Stifel, 2003), and the fuzzy approach adopted by Cheli and Lemmi (1995) and Martinetti (2006), in their study of multidimensional poverty in Cameroon. They show that MCA and fuzzy methods are more sensitive to deprivation than PCA given that estimates from PCA reduced poverty compared with estimates obtained from MCA and the fuzzy approach.

Estimation strategy

Following the studies of Tóth (2010), Marrugo et al. (2015), and Bárcena-Martín et al. (2015), we used the logistic regression method in this chapter to estimate the drivers of multidimensional poverty among under-five children in Nigeria. In this study, child poverty (Z) is the dependent variable, which takes the value of 1 if an under-five (U5) child is poor and 0 if otherwise.

The logistic model postulates the probability (P_i) that child poverty is a function of an index (Z_i)
Where:
(Z_i) is an inverse of the standard logistic cumulative function of Pi; that is, $P_i(y) = f(Z_i)$
(Z_i) is also an inverse of the standard logistic cumulative function of Pi; that is, $P_i(y = 1) = f(Z_i)$

The probability of U5 child poverty is given by:

$$P_i(y = 1) = \left(\frac{1}{1+e}\right)^{-Z_t} \tag{1}$$

The probability that child poverty occurs is calculated from the Zi value:

$$Z_i = b_0 + b_1 x_1 + b_2 x_2 + b_3 x_3 + \cdots + b_n x_n \tag{2}$$

where x_1–x_n are the independent variables.
The independent variables used in the model can be seen in Table 5.1.

Table 5.1 Summary statistics

Variable	Mean	Std dev.	Min	Max
Child poverty status	0.527	0.499	0	1
Number of U5 in the HH	2.301	1.160	1	9
Household size	7.088	3.526	2	35
Sex of the HH	0.894	0.308	1	0
Age of the HH	41.334	12.066	16	95
Mother's occupation	0.127	0.333	0	1
Mother's education	0.562	0.496	0	1
Frequency news	0.264	0.850	0	9
Frequency radio	0.985	0.981	0	9
Frequency television	0.818	1.017	0	9
Sex of the child	0.499	0.500	1	0
Age of the child (months)	28.300	1.425	0	59
Poorest	0.208	0.406	0	1
Poorer	0.221	0.415	0	1
Middle	0.202	0.402	0	1
Richer	0.196	0.397	0	1
Richest	0.173	0.379	0	1
Mother less than 18 years old	0.377	0.485	0	1
Migration of HH	0.109	0.312	0	1
Yoruba	0.121	0.327	0	1
Hausa	0.289	0.453	0	1
Igbo	0.116	0.320	0	1
Fulani	0.077	0.266	0	1
North-central	0.157	0.364	0	1
North-east	0.201	0.401	0	1
North-west	0.284	0.451	0	1
South-east	0.095	0.293	0	1
South-south	0.125	0.331	0	1
South-west	0.138	0.345	0	1

Source: Author's calculation based on DHS (2013)

Data, modalities, and descriptive statistics

We used the DHS dataset for Nigeria collected in 2013. The data comprised 23,469 households with under-five children. The analytical tools used are descriptive statistics, the Alkire and Foster poverty index, MCA, and logistic regression. The Alkire and Foster MPI method was used to analyse the extent of child poverty in Nigeria. Logistic regression was used to estimate the

drivers of child poverty. Five basic child needs were considered with relevant indicators:

- *Health (vaccination)*. Deprived if child has not received vaccines or did not receive treatment for a recent illness involving acute diarrhoea or respiratory infection.
- *Access to sanitation (type of toilet)*. Child using unimproved sanitation such as pit latrine without slab or open pit latrine.
- *Access to drinking water (source of drinking water)*. Children using unimproved water from an unprotected source such as open wells, open spring, or surface water.
- *Quality of shelter (flooring)*. Children living in houses with no flooring.
- *Nutrition (stunting)*. Children who are more than two standard deviations below the international reference population for nutrition measures.

The findings reveal that 50.09 per cent of the U5 children were female and the average age was 28.30 months. The average size of the households was 7.00 members while the average number of U5 children in each household was 2.30. This is an indication that most of the households are of large size which is likely to have some effects on the welfare status of the child. Over 50 per cent of the mothers had at least primary education. About 37.69 per cent of the mothers were aged under 18. Over 19 per cent of the household heads had migrated to another location. We found that about 28 per cent of the children were sampled from the north-west region of Nigeria.

Empirical results

Child multidimensional poverty

The findings on multidimensional poverty in Nigeria are presented in Table 5.2. The child poverty estimates reveal the proportion of children that are poor when different numbers of dimensions are considered. When only one dimension is considered, the estimates reveal that 91.1 per cent of the children were deprived in one or more of any of the five poverty dimensions and, on average, they were deprived in 2.86 dimensions. The percentage of children deprived decreased with an increase in the number of dimensions as 72.8 per cent and 52.2 per cent of children were deprived when two and three dimensions were considered, respectively.

Table 5.3 shows the relative contribution of each dimension to child multidimensional poverty when different dimensions were considered. The results revealed that sanitation (23 per cent) and housing (22 per cent) had the highest contribution to child multidimensional poverty when only one dimension was considered, revealing that sanitation and housing are inadequate, which poses a huge threat to child well-being in Nigeria, especially in rural households. Needless to say, this is an area that requires quick policy attention.

Table 5.2 Multidimensional poverty indices

Dimension	(MO=HA)	(H)	(A)	Average deprivation
1	0.522	0.911	0.572	2.86
2	0.485	0.728	0.666	3.33
3	0.403	0.522	0.772	3.86
4	0.281	0319	0.881	4.40
5	0.128	0.128	1.00	5.00

Note: MO, adjusted headcount ratio; H, multidimensional headcount ratio; A, average intensity

Table 5.3 Relative contribution of dimensions to multidimensional poverty

Dimension	Water (%)	Health (%)	Housing (%)	Sanitation (%)	Nutrition (%)
1	21.22	15.13	22.00	23.00	18.66
2	21.04	15.78	22.36	21.84	18.98
3	20.45	16.68	22.36	18.80	21.25
4	19.70	18.38	21.85	19.41	20.66
5	20.00	20.00	20.00	20.00	20.00

We found that when two dimensions were considered, housing, sanitation, and access to water had the highest contributions to child poverty. This suggests that in addition to housing and sanitation, water is another issue facing most Nigerian children. Severe water deprivation is an issue of both quality and quantity in Nigeria. Improving water quality is clearly important for children's health.

Based on the computation using the five dimensions, we found that 52.66 per cent of the children were below the multidimensional poverty line (see Figure 5.1). This finding is consistent with the findings of Adetola and Olufemi (2012) and further supported by Rufai et al. (2016). As further shown in Figure 5.1, child poverty is higher in rural households than in urban households. Other studies (e.g. Olagunju et al., 2018) have shown that poverty is a rural phenomenon. Interestingly, we found that poverty among U5 children increases with age. The multidimensional poverty rate among U5 children who are less than 6 months is lower (23.9 per cent) than the rate among U5 children in the range of 24–35 months and 36–59 months (56.8 and 66.8 per cent, respectively). We can deduce from this finding that child 'neglect' increases with developmental stages.

The U5 children from the northern part of Nigeria are multidimensionally poorer than their southern counterparts. Among the six geopolitical zones in Nigeria, the north-east region has the highest incidence of multidimensional poverty, followed by the north-west and north-central (see Figure 5.2). For more than a decade, this region of the country has been affected by a series of social crises, civil unrest, and terrorism. Unarguably, this situation can
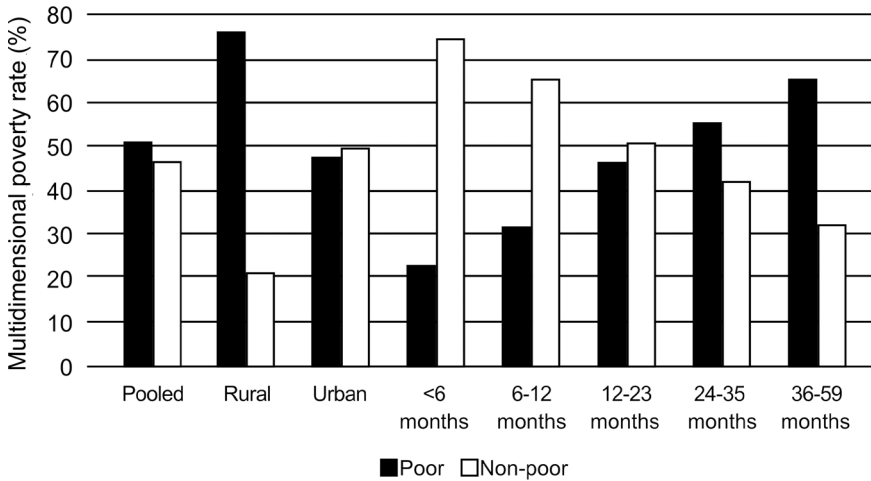
Figure 5.1 Child poverty based on multidimensional approach
Source: Authors' computations based on DHS, 2013 (NPC and ICF International, 2014).
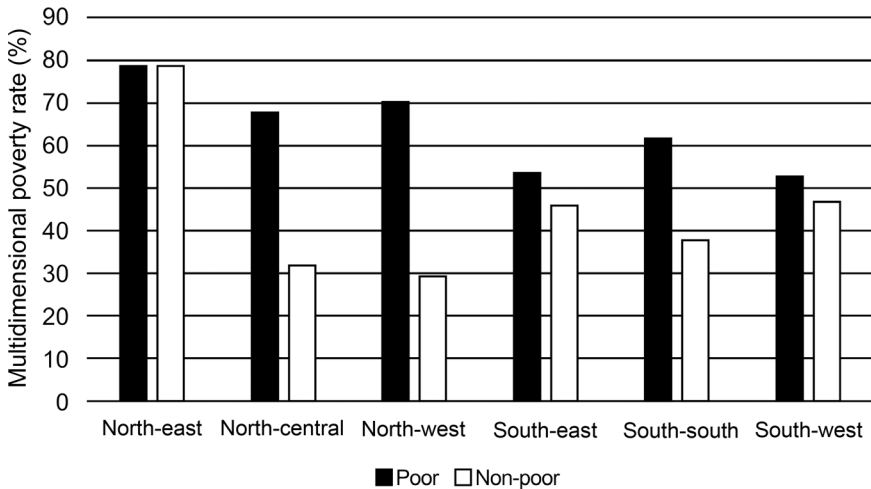
Figure 5.2 Multidimensional child poverty across geopolitical zones in Nigeria
Source: Authors' computations based on DHS, 2013.

increase the likelihood of child vulnerability, hence increasing the probability of a child being poor.

Contribution to child poverty by age with focus on dimensions

We decomposed child poverty across child age group to have a better understanding of the disparity of multidimensional poverty among infants, children at pre-school age, and at school age but still U5. The results of the decomposition across child age revealed that children aged between 13 and

Table 5.4 Decomposition of multidimensional poverty indices across child age

Category	K=1			K=2			K=3		
	(MO=HA)	(H)	(A)	(MO=HA)	(H)	(A)	(MO=HA)	(H)	(A)
Child's age									
< 6 months	0.097	0.106	0.915	0.095	0.102	0.931	0.091	0.098	0.928
6–12 months	0.145	0.144	1.006	0.145	0.147	0.986	0.145	0.146	0.993
13–23 months	0.188	0.188	1.000	0.188	0.187	1.005	0.188	0.186	1.010
24–35 months	0.166	0.163	1.018	0.167	0.165	1.012	0.170	0.169	1.005
36–59 months	0.363	0.358	1.013	0.364	0.359	1.013	0.368	0.363	1.013

Note: MO, adjusted headcount ratio; H, multidimensional headcount ratio; A, average intensity

23 months and those aged between 36 and 59 months contributed most to child poverty (see Table 5.4). For children aged between 36 and 59 months, the decomposition shows that they contributed most to child poverty as when *k* is set at 1 and 2, respectively, 36.3 per cent and 36.4 per cent of poor children were within this age group. The child at this age might find a way to circumvent some of the deprivation, which an infant would definitely be unable to do. Children aged less than 6 months contributed the least to child poverty as they represented 9.7 per cent and 9.5 per cent when *k* was set at 1 and 2, respectively. This is understandable, in that a child under 6 months should receive adequate attention from the mother (or caregiver), possibly to the detriment of other siblings, as this is a sensitive stage in the development of a child.

Drivers of child poverty in Nigeria

We used logistic regression to reveal the key drivers of child poverty in Nigeria through the multidimensional approach. We generated the threshold for classification into poor and non-poor from the MPI obtained from poverty cut-off (*k*) equals 1 (0.522), which was taken as the poverty line. The log likelihood of the fitted model indicates that all predictors' regression coefficients are simultaneously different from zero, and the likelihood ratio chi-square suggests that none of the predictor's regression coefficients is equal to zero. We examined the drivers of child poverty through various lenses, namely pooled, rural, urban, geopolitical zones, and child age decomposition. We present the findings in Table 5.5. We report and discuss the empirical results obtained based on marginal effect, as this is the best way to report dichotomous outcomes.

We found a positive and significant relationship between the numbers of U5 children in the household and child poverty status. This implies that the number of U5 children in the household increases the likelihood of a child being poor. The probable reason may be that as the number of U5 increases, and taking into account that the parent does not have the wherewithal to take proper care of these children, this will lead to deprivation of the child

in one or more of the indicators used in assessing child poverty. Hence, this consequently increases the probability of a child being multidimensionally poor. A study by Marrugo et al. (2015) has confirmed that an increase in the number of members in the household will lead to difficulty in the allocation of limited household resources. The household size was not significant in all empirical models except model 4 (i.e. model for child less than 6 months). However, it was found to increase the likelihood of a child being poor but not for children less than 6 months. A possible explanation for this finding is that this is an infant stage where most children will not suffer neglect or be deprived of well-being, as most household members will work tirelessly to meet the needs of a newborn baby. Hence, as the number of household members increases, the likelihood of a child under 6 months being poor reduces. This is because the different developmental stages are associated with diverse levels of expenditure that childcare requires. The results are in line with the empirical evidence reported by other studies (see Tóth, 2010; Bárcena-Martín et al., 2015).

The probability of a child being multidimensionally poor decreases with the age of the household head. This is consistent with the a priori expectation that poverty decreases with age, especially at the productive age of the individual. This is the period when the head of the household can work effectively and efficiently to provide for the needs of the child. This result is also consistent with Rufai et al. (2016). The mother's occupation (for those participating in agriculture) was found to increase the multidimensional form of poverty. The result is not far from expectations because women involved in agriculture in Nigeria are underrepresented, characterized by low social capital, and have little or no access to productivity enhancing inputs. Therefore, participation of women in agriculture increases the probability of poverty in all models considered in the present study. Anyawu (2010) has argued that type of occupation has a high correlation with poverty.

Education is known as a strong human capital capable of reducing all forms of poverty (Ogunniyi et al., 2016, 2017). Consistently, we found that the likelihood of child poverty is reduced with mother's education, with a higher marginal effect in urban households (9.21 per cent vs. 2.23 in rural households). Other scholars (Chzhen and Bradshaw, 2012; Gornick and Jantti, 2012) have suggested a similar result: education of either parent (father or mother, but preferably both), has a strong likelihood of reducing poverty. The three media variables (reading newspaper, listening to radio, and watching television) were found to be negative and significant. This implies they are reducing child poverty. These variables might not directly link to the child but are directly linked to the parent. These are proxies for whether the household has access to key information, which will assist mothers on nutritional programmes and material, dates of vaccination, and other possible areas of deprivation of the child.

The coefficients for child age are significant and were statistically different from zero. The variables, however, negatively influence the multidimensional

poverty status of the child. This finding may be explained by changes in feeding patterns as children grow older. With cessation of breastfeeding and weaning, then complementary feeding and adequate attention, children might escape some of the deprivation traps. Therefore, children who are completely weaned are likely to obtain adequate nutrients from regular food intake, thereby improving their nutritional status, which is one of the dimensions of deprivation (Kabubo-Mariara et al., 2010). The wealth status of the child's family also plays a significant role in reducing his or her multidimensional poverty status. From middle (poorest being the base) to richest, there is increasing reduction in poverty.

Our findings reveal that children are likely to experience multidimensional poverty if the mother is under 18 years of age. In Nigeria, this age is classified as a 'minor' and this likely implies early marriage. Early marriage is a secular practice in Nigeria (especially in the north) which encourages the feminization and subsequent intergenerational transmission of poverty. The health, mental, and social consequences of early marriage have serious effects on the women concerned and their children. Migration through remittances has been perceived in SSA as a way out of poverty (Lambert et al., 2014; Nagler and Naude, 2017). However, this is not always the case due to a disruptive effect which may have a negative impact on those left behind. Migration of the household head had a probability of retaining a child below the multidimensional poverty line. Maintenance approaches for those caregivers left behind may comprise taking on wage labour or farm maintenance activities to compensate for an impermanent decline in income attributable to the absence of the breadwinner. When a left-behind mother utilizes these subsistence coping strategies to compensate for lost labour, her infant child(ren) may be harmed due to a reduced time for breastfeeding (Toyama et al., 2001; Davis and Brazil, 2016) or lack of supervision leading to higher incidences of child illness (Schmeer, 2009).

The probability of a child living below the multidimensional poverty line increases when the child lives in the northern region (north-west and north-east) of the country and it is statistically significant. The result can be explained by the occurrence of violence and extreme terrorism experienced by the northern region of Nigeria in recent years. The result is also consistent with the findings of Ogunniyi et al. (2016) that northern Nigeria has experienced deprivation due to the activities of the terrorist group Boko Haram.

Conclusions

The study examined child poverty and its drivers in SSA using Nigeria as the case study, with a special focus on five basic groups of child deprivations, namely, quality of shelter, nutrition, health, access to sanitation, and access to safe drinking water, to measure child poverty. In the measure of poverty, we operationalized the five groups of deprivation through MCA to generate an index, and the Alkire and Foster MPI methodology was used to disentangle

Table 5.5 Drivers of child poverty in Nigeria: logistic regression model

Variables	Pooled (Model 1)	Urban (Model 2)	Rural (Model 3)	< 6 months (Model 4)	6–12 months (Model 5)	13–23 months (Model 6)	24–35 months (Model 7)	36–59 months (Model 8)
Number of U5 in HH	0.00944*** (0.00337)	0.0229*** (0.00810)	0.00248 (0.00203)	0.0100 (0.00725)	0.00570 (0.00936)	0.00940 (0.00814)	0.0119 (0.00761)	0.00793 (0.00548)
Household size	0.000802 (0.00120)	0.00345 (0.00272)	-0.000606 (0.000763)	-0.00506* (0.00281)	0.00134 (0.00329)	0.000841 (0.00275)	0.000909 (0.00275)	0.000648 (0.00193)
Sex of HH (male)	-0.0256*** (0.00813)	-0.0482** (0.0192)	-0.00682 (0.00501)	-0.0182 (0.0196)	-0.0846*** (0.0219)	-0.00787 (0.0191)	-0.000959 (0.0186)	-0.0207 (0.0139)
Age of HH	-0.00108*** (0.000263)	-0.00186*** (0.000648)	-0.000364** (0.000156)	0.000608 (0.000580)	-0.00119* (0.000677)	-0.00115* (0.000608)	-0.00171*** (0.000606)	-0.00179*** (0.000447)
Mother's occupation (agriculture)	0.0732*** (0.00706)	0.189*** (0.0317)	0.0223*** (0.00384)	0.0563*** (0.0181)	0.0693*** (0.0214)	0.0713*** (0.0167)	0.0725*** (0.0161)	0.0810*** (0.0113)
Mother's education	-0.0527*** (0.00753)	-0.0921*** (0.0202)	-0.0237*** (0.00479)	-0.00394 (0.0179)	-0.0556*** (0.0210)	-0.0284 (0.0183)	-0.0770*** (0.0174)	-0.0587*** (0.0124)
Reading news	-0.00930*** (0.00315)	-0.0205** (0.00819)	-0.00340* (0.00185)	-0.0106 (0.00811)	-0.0131 (0.00962)	-0.0118 (0.00740)	-0.0107 (0.00717)	-0.00929* (0.00520)
Listening to radio	-0.0142*** (0.00315)	-0.0187** (0.00850)	-0.00665*** (0.00176)	-0.0194*** (0.00724)	-0.0133 (0.00843)	-0.0115 (0.00751)	-0.0105 (0.00754)	-0.0173*** (0.00538)
Watching television	-0.00396 (0.00333)	-0.0185** (0.00860)	0.000811 (0.00195)	0.0189** (0.00789)	-0.0133 (0.00946)	-0.0104 (0.00778)	-0.00697 (0.00787)	-0.00201 (0.00573)
Sex of child (male)	-0.0123** (0.00534)	-0.0173 (0.0127)	-0.00578* (0.00327)	0.00499 (0.0121)	-0.0175 (0.0148)	-0.0207 (0.0129)	0.00763 (0.0123)	-0.0251*** (0.00907)
Child age	-0.00685*** (0.00193)	-0.0158*** (0.00456)	-0.00215* (0.00118)					
Poorer	-0.326*** (0.0326)	-0.216*** (0.0626)	-0.160*** (0.0185)	-0.316*** (0.108)	-0.308*** (0.0837)	-0.418*** (0.0790)	-0.309*** (0.0876)	-0.295*** (0.0485)

(Continues)

Table 5.5 (Continued)

Variables	Pooled (Model 1)	Urban (Model 2)	Rural (Model 3)	< 6 months (Model 4)	6–12 months (Model 5)	13–23 months (Model 6)	24–35 months (Model 7)	36–59 months (Model 8)
Middle	-0.662*** (0.0234)	-0.427*** (0.0378)	-0.472*** (0.0279)	-0.755*** (0.0685)	-0.635*** (0.0627)	-0.689*** (0.0545)	-0.671*** (0.0618)	-0.636*** (0.0362)
Richer	-0.810*** (0.0143)	-0.609*** (0.0395)	-0.744*** (0.0235)	-0.871*** (0.0389)	-0.791*** (0.0394)	-0.821*** (0.0332)	-0.814*** (0.0379)	-0.800*** (0.0219)
Richest	-0.884*** (0.00837)	-0.755*** (0.0338)	-0.896*** (0.0106)	-0.926*** (0.0212)	-0.867*** (0.0241)	-0.882*** (0.0206)	-0.900*** (0.0196)	-0.879*** (0.0125)
Mothers under 18 years	0.0344*** (0.00621)	0.0527*** (0.0163)	0.0158*** (0.00374)	0.00537 (0.0151)	0.0315* (0.0172)	0.0634*** (0.0143)	0.0368*** (0.0141)	0.0477*** (0.00989)
Migration of head	0.0346*** (0.00713)	0.0659*** (0.0208)	0.0122*** (0.00415)	0.0276* (0.0160)	0.0521*** (0.0182)	0.0582*** (0.0155)	0.0279* (0.0168)	0.0229* (0.0129)
Yoruba	-0.0191 (0.0119)	0.0595** (0.0248)	-0.0249** (0.0118)	-0.0228 (0.0265)	0.0123 (0.0300)	-0.0618* (0.0332)	0.0236 (0.0224)	-0.0427* (0.0221)
Hausa	-0.000956 (0.0120)	0.0587** (0.0287)	-0.00941 (0.00784)	-0.0439 (0.0311)	0.0457 (0.0319)	0.00582 (0.0283)	0.00300 (0.0267)	-0.00564 (0.0202)
Igbo	-0.0385** (0.0172)	0.0165 (0.0313)	-0.0303* (0.0172)	-0.0436 (0.0412)	0.0217 (0.0407)	-0.0106 (0.0368)	-0.0822* (0.0447)	-0.0480 (0.0301)

Fulani	0.0174	0.0395	0.00427	0.0160	0.0338	0.00211	-0.0345	0.0503**
	(0.0158)	(0.0454)	(0.00915)	(0.0340)	(0.0419)	(0.0395)	(0.0442)	(0.0234)
North-east	0.0465***	0.0412	0.0331***	0.0620**	0.0234	0.0104	0.0457	0.0660***
	(0.0119)	(0.0291)	(0.00762)	(0.0305)	(0.0318)	(0.0254)	(0.0281)	(0.0207)
North-west	0.0140	0.0748**	0.00698	0.000102	-0.0233	0.0441	0.0129	0.0211
	(0.0131)	(0.0338)	(0.00817)	(0.0318)	(0.0400)	(0.0299)	(0.0297)	(0.0217)
South-east	-0.0339*	0.01000	-0.0206	0.0155	-0.104	-0.0910*	0.0152	-0.0411
	(0.0193)	(0.0365)	(0.0174)	(0.0333)	(0.0649)	(0.0518)	(0.0366)	(0.0340)
South-south	-0.0380***	-0.125***	-0.00771	-0.0590***	-0.0560***	-0.000846	-0.0106	-0.0489***
	(0.00818)	(0.0284)	(0.00475)	(0.0161)	(0.0216)	(0.0216)	(0.0205)	(0.0134)
South-west	-0.0428***	-0.112***	-0.0198***	-0.0495***	-0.00739	-0.0585***	-0.00900	-0.0521***
	(0.00961)	(0.0249)	(0.00664)	(0.0182)	(0.0301)	(0.0225)	(0.0239)	(0.0163)
LR chi2 (n)	11488.09	2414.08	4663.78	950.28	1590.92	2153.99	2305.87	4641.95
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R^2	0.3937	0.2174	0.3458	0.3518	0.3857	0.3910	0.4201	0.4107
Observations	23,469	8,224	15,245	2,374	3,293	4,382	4,393	9,027

Standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.00$

the dynamics of multidimensionally poor children. The child poverty indicators revealed that most of the U5 children in Nigeria are living below accepted standards of well-being. The situation is more prevalent in rural areas and the northern region. Most of the children are deprived of access to basic needs. We found that migration of the household head, mothers giving birth as a minor (under 18 years), mothers of U5 children working in the agriculture sector, higher numbers of U5 children in the households, maternal education, wealth index, age of the child, sex of the U5 child (female), age of the household head, and ethnicity, are key drivers (in different directions and magnitude) of child poverty in Nigeria.

We therefore suggest that investing in the development and protection of Nigeria's children is not a choice, but a priority. The current coalescence of negative impacts around the child and the resulting impacts on human capital reproduction will seriously damage prospects for the overall development of the country in the coming years. Investing in the child does not mean separating out children with special needs, but it would instead require an integrated and holistic approach supporting the communities in which children live, their basic needs, and the participatory development which will not only produce active citizens of the future, but will also provide sustainable solutions to child poverty in Nigeria.

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About the authors

Ogunniyi Adebayo is a Research Analyst for the International Food Policy Research Institute, Nigeria. His research interests are food security and nutrition, child poverty, technology adoption and innovation dynamics, social protection, spatial economics, impact assessment, rural development, and agribusiness management. His work has appeared in several applied economics journals.

Rufai Mistura holds a PhD in Agricultural Economics from the University of Ibadan. She is a member of the poverty team and a researcher at the World Bank, Abuja Office. She is actively involved in research, and her areas of specialization include gender and welfare analysis, health economics, agricultural production, impact assessments, and rural and developmental economics.

George Mavrotas (PhD, University of Oxford) is a leading development economist with about 30 years of experience in international development. Until recently, he was a Senior Research Fellow at the International Food Policy Research Institute (IFPRI) and the Head of IFPRI's Nigeria Office, where he worked for five years. Other current honorary appointments include Visiting Professor at the Institute of Development Policy and Management, University of Antwerp (Belgium); Senior Fellow at the Foundation for International Development Study and Research (Ferdi, France); and a Visiting Professor at Peking University, Beijing (China). Previous appointments include Chief Economist of the Global Development Network (GDN) and Senior Fellow and Project Director at the World Institute for Development Economics Research of the United Nations University (UNU-WIDER), and prior to that on the Economics Faculties of the Universities of Oxford and Manchester. He is widely published with more than 130 publications, including numerous papers in leading peer-reviewed journals, and nine books.

Olagunju Kehinde is an agricultural economist within the sectoral modelling unit at the Agri-food and Biosciences Institute, Belfast, UK. His current research interests include modelling the drivers of dairy productivity at sector level, modelling the impact of agricultural subsidies on farm production, and welfare and economic impact assessment of agricultural interventions.

Salman Kayode Kabir is a senior lecturer at the Department of Agricultural Economics, University of Ibadan, Nigeria. He has expertise in the area of health and environmental economics, and has rendered consultancy services to organizations such as AERC, NEST, IFPRI, FARA, United Nations University-Institute of Natural Resources (UNU-INRA), Ibadan School of Government and Government Policy (ISGGP), and the Federal Government of Nigeria. He has received grants from the AERC, AGRODEP (2014 and 2015), and was a visiting scholar at UNU-INRA, 2016. He has worked on over 50 publications and is well-versed in data processing tools and software.

Fadare Olusegun is an agricultural economist, working with the International Food Policy Research Institute in Nigeria as a Research Analyst. He holds an MSc in Agricultural Economics from the University of Reading, UK, and has a good publication record in peer-reviewed journals, including *Public Health Nutrition* and *PLOS One*.

CHAPTER 6

Achieving child-centred SDGs in Ethiopia: The potential of inter-sectoral synergies[1]

Remy Pigois, Michael Samson, and Vincenzo Vinci

Abstract

Globally, the Sustainable Development Goals (SDGs) adopt a systems approach that depends critically on comprehensive and integrated economic and social policies. Ethiopia's fiscal decentralization provides an opportunity to measure inter-sectoral synergies and assess their role in SDGs achievement. This chapter analyses Ethiopia's Ministry of Finance and Economic Cooperation's innovative BOOST database linked with SDGs indicators estimated from the nation's living standards and socio-economic surveys. The analysis, based on testing a policy production function model that robustly accounts for interactions among vital policy sectors such as health, education, agriculture, and governance, provides policy recommendations towards achieving an identified set of child-centred SDGs indicators in Ethiopia.

Introduction

Globally, the Sustainable Development Goals (SDGs) adopt a systems approach that depends critically on comprehensive and integrated economic and social policies. From 2000 to 2015, Ethiopia achieved top-ranking Millennium Development Goals (MDGs) performance in the African region. Ethiopia has prepared a medium-term plan – the Second Growth and Transformation Plan, covering the period from 2015 to 2020 – which forms an integral part of the country's post-2015 development agenda. Compared with its initial point at the beginning of the MDG challenge in 2000, the country today is more advantageously positioned to achieve even greater progress in its development objectives – drawing from good practices and lessons learned during the imple-mentation of the MDGs. Ethiopia's ongoing fiscal decentralization provides an opportunity to identify linkages between policy spending and SDG perfor-mance. This includes an analytic approach that captures inter-sectoral policy synergies, highlighting the role of systems in the achievement of the SDGs.

Over the past decades, Ethiopia has substantially reduced extreme poverty rates, raised primary school enrolment, and reduced the under-five mortality rate — combining strong rates of equitable economic growth with exemplary improvements in inclusive social development. Several development-related investments, which promoted inclusive growth and sectoral productivity – including the Productive Safety Net Programme – contributed as drivers of poverty reduction in the country and supported achievement of the MDG targets (UNECA, 2014).

This chapter builds on a baseline assessment and modelling of Ethiopia's progress in achieving a set of Child-Centred Sustainable Development Goals (CC-SDGs). These include several SDGs indicators selected for this analysis focusing on both child-related outcomes and economic growth dimensions.[2] We contribute to the operational evidence base on delivery successes and gaps, supporting SDG performance that can strengthen Ethiopia's leadership role in Africa and around the world.

The next section discusses briefly Ethiopia's baseline status in terms of CC-SDGs, and then briefly summarizes the microeconomic foundations for the macro model that we build and analyse. In a later section we employ sub-national (district-level) expenditure data and develop a macro model to forecast public expenditures until 2030 under three scenarios, presenting the model assumptions and scenarios. Scenario 1 models a business-as-usual situation, while scenarios 2 and 3 adopt alternative optimization methods. The first scenario projects forward existing expenditure patterns that grow in line with economic growth. The second scenario reflects a 'learning-by-doing' optimization approach, taking advantage of the diverse experiences across districts (*woredas*), and identifying a 'best practice' combination of fiscal expenditures. Scenario 3 employs a smart-search optimization algorithm to fine-tune fiscal synergies, improving progress intensively and extensively while improving efficiency. The final sections discuss the policy implications and offer recommendations.

Background: Ethiopia's SDG baseline status

Ethiopia's baseline status at the beginning of the post-2015 development horizon varies across the different Sustainable Development Goals. Findings indicate that Ethiopia has made substantial achievements in reducing poverty rates, increasing school enrolment, and providing contraceptive care. Yet assessments show that greater investments are required to achieve the SDGs, particularly in access to basic services, child nutrition, reduced child mortality, abolishing child labour, and eliminating gender inequalities – all of which explain high rates of multidimensional poverty. Additionally, low rates of access to improved water and sanitation sources, electricity, and health care impede efforts to achieve goals such as reducing wasting, stunting, and child mortality. Significant spatial disparities between urban and rural areas and

across regions highlight the need for investments to better reach excluded and marginalized groups.

The microeconomic underpinnings: a cross-sectoral approach to costing the SDGs

The chapter builds on a microeconomic costing methodology that encompasses a range of analytical frameworks, from conventional single-sector models to more sophisticated multi-input approaches as well as an innovative framework that measures interactions across policy sectors and captures integration effects.[3] This advanced approach reflects an understanding that the achievement of the SDGs results from a public policy production process in which SDG indicators represent outputs and spending on critical policy sectors represents the inputs. This methodology improves the costing approach in several ways. Foremost, it pre-empts two critical traps into which unit-cost approaches often fall: 1) over-estimating costs by ignoring interaction effects referred to as 'policy synergies'; and 2) underestimating costs by ignoring non-linear relationships, especially the commonly observed situation in which additional resources achieve diminishing impacts once the 'low-hanging fruit' has been harvested.

The methodology underpinning this analysis overcomes both these limitations, and therefore can model not only total costs more accurately but also unlock the identification of synergy-producing interactions among policy sectors. Ethiopia's available district-level fiscal data merged with child outcomes summarized from household-level data enables the estimation of these effects. The data supports the analysis of nine sectors relevant for child-centred analysis: 1) education; 2) health; 3) agriculture and rural development; 4) culture and sport; 5) water resources; 6) trade and industry; 7) organs of state; 8) justice and security; and 9) general services.

The innovative approach to modelling the cost of SDGs yields four main findings that drive the policy analysis we developed. First, conventional unit-cost models, which are the most common approaches employed today, do not successfully predict SDG outcomes. The estimates for most of the SDG indicators show that unit-cost approaches fail to explain the variability of district-level outcomes in Ethiopia. The unit-cost models yield poor statistical results, indicating they are unreliable for the purposes of a costing exercise. Out of 13 modelled SDG indicators, 11 unit-cost models fail to significantly explain the data.

Second, formal statistical testing rejects the applicability of a unit-cost approach. The conventional unit-cost approach requires satisfaction of strong assumptions undergirding the adopted restricted linear model: total cost must equal the number of beneficiaries times a constant cost-to-deliver. The formal hypothesis testing rejects the power of the unit-cost approach in explaining district-level outcomes in Ethiopia. Formal statistical tests of all the modelled SDGs reject the strict applicability of the unit-cost model.

Third, models that can measure the complex relationships between fiscal strategies and SDG outcomes provide substantially greater explanatory power and significance. These advanced inter-sectoral models go further than unit-cost approaches by interacting spending across sectors to measure the impact of cross-sectoral synergies. These models demonstrate significantly greater explanatory power than the unit-cost models and are also more statistically significant and robust than the single-sector approach. Urban-rural disaggregated models for select indicators are also shown to be more robust than unit-cost models.

Fourth, formal hypothesis testing documents the powerful impact of cross-sectoral synergies in explaining SDG outcomes at district level, with the interactions demonstrating complex pathways to achieving the SDGs. Statistical tests that measure the additional explanatory power of the advanced methodology's innovations (the synergy terms) demonstrate the essential role of the model features that measure synergy. For 12 out of 13 SDG indicators, hypothesis testing confirms that cross-sectoral synergy terms have a significant impact on the outcome indicator. The inclusion of these interaction terms better explains the variability in SDG outcomes and they are necessary to more accurately cost the achievement of SDGs in the long term.

Overall, the methodology underpinning this analysis best explains the achievement of SDG outcomes. Most of the explanatory power results from components of the model reflecting policy synergies across sectors. Figure 6.1 illustrates the example of health investments aimed at reducing the prevalence of wasting, where districts spending on both education and agriculture ('high co-financers') are more efficient and better able to reduce wasting in children
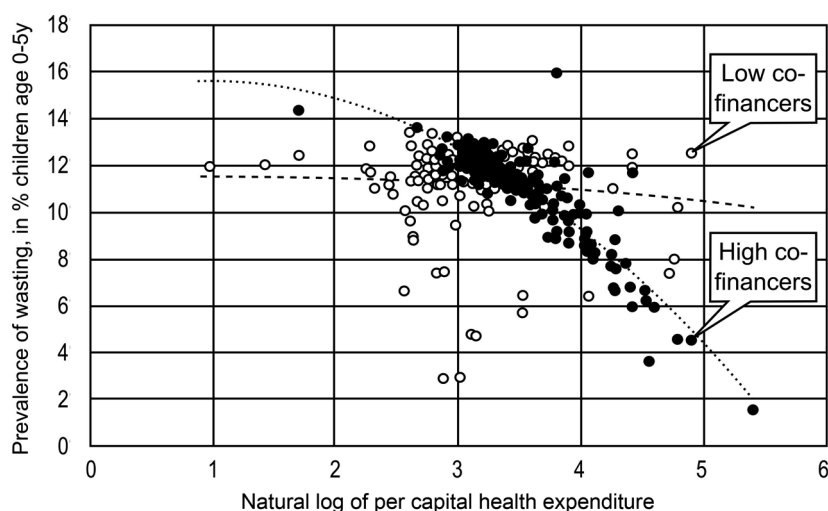
Figure 6.1 Health expenditure on prevalence of wasting, by high and low co-financing districts
Source: Author's empirical estimates using BOOST data

with health expenditures compared with those districts that do not co-invest adequately in these complementary policy sectors ('low co-financers'). This evidence supports the recommendation presented in this chapter of adopting a systems approach to development – strengthening sectoral synergies and comprehensive programmes, which have impacts beyond their own sector (e.g. health programmes that foster education outcomes). In contrast, silo approaches demonstrate rapidly diminishing marginal returns, which do not harvest much more than the proverbial 'low-hanging fruit'. Practically, this means that attaining development is increasingly about moving away from within-ministry planning to integrated developmental planning. High-level political will fostering cooperation and coordination drive these vital opportunities to achieve inclusive social development and equitable economic growth; districts that effectively integrate investments across sectors (health, education, and agriculture in the example above) can more effectively achieve complex outcomes (improved nutrition in the above example). The microeconomic underpinnings are consistent with the hypothesis that comprehensive and integrated investments across key social sectors better enable a systems approach that has a greater likelihood of successfully achieving the SDGs.

A macro costing model for Ethiopia's SDG achievement

The costing models underpinning this analysis enable a more comprehensive analysis of the fiscal and policy reforms required for achieving the CC-SDGs. Using subnational (district-level) expenditure data, we employ a macro model that forecasts public expenditures until 2030 with three scenarios. Scenario 1 models a business-as-usual situation, while scenarios 2 and 3 adopt different optimization methods.

The simulated 2030 sectoral expenditures provide the input for analysing the financial resources required to achieve the CC-SDGs in Ethiopia. The translog specification underpinning the costing model reflects an understanding that the achievement of the SDGs results from a public policy production process in which SDG indicators represent outputs and spending on critical policy sectors represents inputs. The three scenarios are repeated using a second model with rural-urban disaggregation, factoring in residence-specific relationships.

The model results provide particularly important evidence for the National Planning Commission (NPC) and the Ministry of Finance and Economic Cooperation (MoFEC), as well as for donors and development partners. The results demonstrate that single-sector solutions are unlikely to achieve adequate results with any feasible set of resource allocations. The complexity of SDG inter-relationships and the challenges of diminishing marginal returns to socio-economic investments require cross-sectoral approaches which the NPC and MoFEC, with support from relevant partners, are best placed to manage. The evidence demonstrates the powerful returns to a comprehensive and integrated developmental policy approach.

Model assumptions

The macro model is constructed based on household survey outcomes data that is matched with government expenditure data, specifically sectoral expenditures for districts, cities, and zonal administrative bureaus. This creates the set of CC-SDG production functions estimated in Samson et al. (2018). The expenditure inputs are projected to 2030 under alternative sets of assumptions, drawing on population and GDP estimates and forecasts from official sources. As GDP forecasts are not available beyond general medium-term expenditure frameworks, economic growth trends are linearly extended for the remaining years. For demographic growth, long-term trends are available. Due to data constraints in matching expenditure data with household outcomes, the most complete and feasible dataset provides data for 2011: the analysis employs this as the base year.[4] The SDG outcomes created by each production function are benchmarked against internationally and, in some cases, nationally defined SDG targets for 2030 (see Table 6.1).

Model scenarios

To assess the CC-SDGs performance by 2030, three scenarios were created which consider affordability, performance, and cost-efficiency to varying degrees. Scenario 1 models a business-as-usual case where expenditure growth reflects changes in size of the economy and the population as described above.

Table 6.1 Overview of available child-centred SDG indicators

SDG #	Indicator	SDG target
1.1.1	International poverty	Eradicate extreme poverty (towards 3% headcount)
1.2.1	National poverty	50% reduction (towards 14.80% headcount)
1.2.2	Multidimensional poverty	50% reduction (towards 41.90% headcount)
2.2.2	Wasting	40% reduction by 2025 (towards 5.90% headcount)
3.1.2	Skilled birth attendance	Universal birth attendance
3.2.1.	Under-5 mortality	25 deaths per 1,000 live births
3.7.1	Contraception	Universal access to planning/reproductive services
4.1.1	Primary enrolment	Universal enrolment
4.1.1	Secondary enrolment	Universal enrolment
6.1.1	Water	Universal access
6.2.1	Sanitation	Universal access
8.7.1	Child labour	Eradication of child labour by 2025 (towards 1% headcount)
10.2.1	Below-median income	Income growth of bottom 40% higher than national average

Scenario 2 uses an empirical optimization of government spending where the top-performing district, in terms of largest CC-SDG targets attainment and lowest per capita expenditure, is identified and selected as best practice that all districts adopt over time. The third scenario employs a path-dependent algorithm to improve efficiency and value for money. Adopting a step-wise process, the algorithm searches for improvements in SDGs achievement and reductions in cost, without compromising the achievement of any of the CC-SDGs achieved by 2030 in scenario 2.

Scenario 1: Business-as-usual (constant growth)
The first scenario presents CC-SDGs achievements by 2030 resulting from a business-as-usual case. Specifically: 1) government expenditure grows proportional to real GDP growth; 2) total government expenditure as a percentage of GDP remains constant over time; and 3) each district is assumed to keep its original expenditure mix, prioritizing certain sectors over others in the same manner as the baseline, in relative terms.

Based on these spending allocations, the question is, how much of the SDGs will be achieved if the country continues its current trajectory? Table 6.2 presents the average district achievements by the year 2030, and the change in percentage points (p.p.) compared with the base year 2011. Of the 13 indicators, all but one show improvement. Under-5 mortality does not change with increases in expenditure over time. On the other side of the spectrum, primary

Table 6.2 CC-SDG average performance across districts, 2011 and 2030 business-as-usual

Scenario 1	2011	2030 Scenario 1	Difference in p.p.
Eradication			
Multidimensional poverty	69.4%	61.7%	−7.7%
International poverty	31.5%	25.8%	−5.7%
National poverty	27.1%	22.0%	−5.1%
Child labour	21.6%	16.5%	−5.1%
Wasting	10.8%	6.7%	−4.2%
Below median income	14.6%	11.3%	−3.3%
Under-5 mortality (per 1,000)	93	100	6
Universality			
Primary school enrolment	69.4%	86.3%	16.9%
Skilled birth attendance	22.5%	37.3%	14.8%
Water	48.1%	56.8%	8.7%
Sanitation	12.4%	20.4%	8.0%
Contraception	46.3%	50.4%	4.1%
Secondary school enrolment	20.0%	21.2%	1.2%

school enrolment and skilled birth attendance behave as the low-hanging fruits of development and are very sensitive to expenditure growth. Access to sanitation and improved water sources also improve significantly.

If Ethiopia maintains its current pace of economic performance – with the relative size of government spending to GDP held constant and the current mix of public spending held constant at district level – the country will make important progress on some CC-SDGs indicators, but will nonetheless only achieve one of the indicators (wasting) in more than half the districts (see Table 6.3), and only marginally: 50.3 per cent of the districts will have reduced wasting to the nationally defined SDGs target of 5.9 per cent prevalence by 2030. These findings illustrate that a business-as-usual approach will lead to imbalanced and inadequate progress towards CC-SDG achievement.

However, averages do not convey the complete story. On many indicators, at least one district had already achieved the target by 2011 (see Table 6.3). This is the case for all six targets of universal service provision. The simple fact that in 2011 some districts had already managed to achieve some of the SDGs targets demonstrates that there is capacity within the country to tackle these developmental challenges. Even so, the country's best performing districts will only achieve four of the seven eradication targets by 2030, up from

Table 6.3 Proportion of districts achieving each CC-SDG target and prevalence of best-performing district per indicator, 2011 and 2030 business-as-usual

Scenario 1	2011		2030 Scenario 1	
	% districts achieving target	*Best-district prevalence (headcount)*	*% districts achieving target*	*Best-district prevalence (headcount)*
Eradication				
Below median income	11.1	0.1%	48.8	Eradication
Wasting	5.4	Eradication	50.3	Eradication
Child labour	0.0	0.8%	0.0	0.1%
National poverty	14.7	0.1%	21.7	Eradication
International poverty	0.0	1.2%	36.2	0.1%
Multidimensional poverty	2.7	3.7%	7.8	2.2%
Under-5 mortality	5.4	Eradication	8.8	Eradication
Universality				
Primary school enrolment	3.6	Universality	21.5	Universality
Skilled birth attendance	1.9	Universality	8.1	Universality
Water	14.7	Universality	25.6	Universality
Sanitation	0.4	Universality	1.2	Universality
Contraception	3.3	Universality	6.1	Universality
Secondary school enrolment	0.9	Universality	1.5	Universality

two. As such, this scenario illustrates that for several SDGs, increased resources are part of the solution. The scenario further highlights the importance of learning from high-performing districts and adopting best practice in other districts with care for the uniqueness of context.

In conclusion, scenario 1 shows that increasing expenditure alone will not achieve sustainable development for children. When looking at the relationship between total per capita expenditure of each district and the number of SDGs each district achieves, expenditure fails to explain SDG progress. More technically, this correlation is low and not statistically different from zero correlation, at any acceptable threshold.[5] This is an important and innovative finding, as simple costing studies often indicate increased spending to be the primary driver of development. This analysis, however, shows that more spending is but one part of the development story. The analysis shows that value for money lies in identifying the right expenditure mix. Successful achievement of the CC-SDGs requires investing in specific sectors, especially those where synergies across sectors generate the highest joint returns. The next two scenarios explore this question.

Scenario 2: 'Best-practice' learning-by-doing optimization
Learning-by-doing approaches increasingly improve developmental planning processes and provide valuable opportunities for improved public financial management (PFM). The second scenario adopts a 'best-practice' empirical optimization of government spending. Specifically, the analysis identifies the best-performing district in terms of SDGs achievements in scenario 1, the one that achieves the largest number of targets at the lowest total expenditure.

Adopting the best performing district's public spending approach for all districts, Ethiopia achieves 10 out of the 13 targets by 2030 (see Table 6.4). All the universal targets are achieved bar secondary school enrolment, which nonetheless rises from a district average of 21 per cent enrolment in 2011 to 66 per cent by 2030. Similarly, all districts show progress reducing national, international, and multidimensional poverty. However, the target for reducing international poverty – measured as the proportion of the population living below US$1.90 a day – is still not achieved, as the poverty headcount is reduced only to 12 per cent. Districts also fail to achieve the child labour target, although the average prevalence falls substantially — from 17 to 7 per cent.

The increased performance of scenario 2 comes with a significant increase in cost – between tripling and quadrupling compared with scenario 1 (see Table 6.6). The best performing district spends considerably more than the average district. However, this district also exploits significant innovations in the expenditure mix. The translog production function on which the input-output elasticities in this analysis are based allows sectoral expenditures to interact with each other, creating multiplicative effects, which can be referred to as 'synergetic effects' or simply 'synergies'. For example, the best-practice adoption leads to a sizable increase in education investments.

Table 6.4 Scenario 2 outcomes

Scenario 2	2030 Scenario 1 (%)	2030 Scenario 2 (%)	Difference in p.p.	Target (%)	Achieved?
Eradication					
Multidimensional poverty	61.7	23.4	−38.3	42	Yes
International poverty	25.8	11.8	−14.1	3	No
National poverty	22.0	10.1	−14.0	15	Yes
Child labour	16.5	7.0	−9.5	1	No
Below median income	11.3	1.8	−9.5	15	Yes
Under-5 mortality (per 1,000)	100	24	−76	25	Yes
Wasting	6.7	1.3	−5.4	6	Yes
Universality					
Sanitation	20.4	100.0	79.6	100	Yes
Skilled birth attendance	37.3	100.0	62.7	100	Yes
Contraception	50.4	100.0	49.6	100	Yes
Secondary school enrolment	21.2	66.3	45.2	100	No
Water	56.8	100.0	43.2	100	Yes
Primary school enrolment	86.3	100.0	13.7	100	Yes

Global evidence corroborates the importance of education in this respect – education expenditure goes beyond achieving educational outcomes: it reduces poverty and can improve children's health (DSD, SASSA, and UNICEF, 2012). In turn, education makes health spending more productive, while nutritional programmes make education more effective (e.g. school feeding) – they all interact. All these spending inputs simultaneously achieve joint outputs on health, education, nutrition, livelihoods, and overall child well-being.

Besides education, the best-practice district prioritizes agriculture, organs of state, and general services. While education and agriculture are clearly important drivers of sustainable development (Mincer, 1974; Ghatak and Ingersent, 1984), the role of organs of state and general services are less commonly explored in social policy models. The category 'organs of state' primarily includes administrative councils and executive offices, and in the case of Ethiopia also the Bureau of Women's and Children's Affairs (BoWCA), an agency collaborating with organizations working on women, children, and youth empowerment. The Bureau performs capacity-building activities to ensure equal participation and benefit for women in political, economic, and social spheres (MWCA, 2017). 'General services' encapsulates the Bureau of Finance and Economic Development and the Bureau of Civil Service and Capacity Building. Expansion of both can yield improved sustainable development through channels of financial management, economic policy, and increased human capital among civil servants.

In sum, this best-practice scenario clearly outperforms the business-as-usual scenario. This is due to: 1) a significant increase in expenditure; and 2) a reprioritization of sectoral investments. Considering the first, this scenario requires a growth rate in government spending that is greater than the economic growth rate. As economies grow, government expenditure as a percentage of GDP typically increases. Scenario 2 demonstrates that it is important to identify, learn, and adopt from districts where child-sensitive development outcomes are achieved. This scenario also shows that certain developmental milestones remain out of reach even with the learning-by-doing best-practice approach: secondary school enrolment, extreme poverty, and child labour (see Table 6.4). This raises the question whether it is possible to go beyond the learning-by-doing optimization and further improve performance by analytically optimizing the expenditure mix. This is investigated in the third scenario.

Scenario 3: Analytic 'smart-search' optimization
The third scenario adopts an optimization strategy for near-universal CC-SDGs achievement against the best possible efficiency in expenditure size and sectoral prioritization. Typically, an analytic optimization algorithm is used for such an investigation. However, due to the high number of expenditure functions included in the present simulation, this exercise is too computationally intensive given the available computer resources.[6] Moreover, because the algorithm seeks to find an optimum on a multidimensional surface with a specific set of indicator thresholds, the optimization is discontinuous and therefore non-differentiable, ruling out most analytical approaches.[7] For example, the synergy effects of the translog functions create both reinforcing as well as offsetting effects simultaneously. Therefore, an incremental approach is adopted where the fiscal mix and expenditure levels of the best-practice scenario provide the initial point of departure.

A 'smart-search' methodology is applied to optimize performance. Adopting scenario 2 as a starting point, the approach adjusts fiscal expenditures sequentially – increasing fiscal expenditure to achieve additional goals, or reducing expenditure to improve efficiency, as long as the achievement of any SDG is not compromised (see Table 6.5). These criteria achieve a path-dependent solution conditional on the initial category of fiscal expenditure adjusted and the subsequent sequencing of fiscal expenditure adjustments. Assurance of a global optimum will likely require a grid search but the results demonstrate that the smart-search optimization procedure can both improve the achievement of SDGs outcomes and lower the fiscal expenditure required, improving value for money.

The scenario manages to improve SDGs performance (adds universal secondary enrolment to the mix of achieved targets) and, remarkably, does so at a lower cost, reducing expenditure to 22.8 per cent of GDP, down from 23.9 per cent in scenario 2 (see Table 6.6). Moreover, most indicators show further improvement. These findings reveal that leveraging sectoral synergies

Table 6.5 Scenario 3 outcomes

Scenario 3	2030 Scenario 2 (%)	2030 Scenario 3 (%)	Difference in p.p.	Target (%)	Achieved?
Eradication					
Multidimensional poverty	23.4	21.0	−2.4	42	Yes
Wasting	1.3	0.8	−0.4	6	Yes
Under-5 mortality (per 1,000)	24	23	−1	25	Yes
Child labour	7.0	7.0	−0.0	1	No
Below median income	1.8	2.4	0.6	15	Yes
International poverty	11.8	15.4	3.6	3	No
National poverty	10.1	12.9	4.9	15	Yes
Universality					
Secondary school enrolment	66.3	100	33.7	100	Yes
Skilled birth attendance	100.0	100	0.0	100	Yes
Water	100.0	100	0.0	100	Yes
Sanitation	100.0	100	0.0	100	Yes
Contraception	100.0	100	0.0	100	Yes
Primary school enrolment	100.0	100	0.0	100	Yes

can enhance SDGs performance at a lower cost compared with the second scenario.

Cross-scenario analysis

A comparison of the scenarios identified important results, for example, Figure 6.2 compares expenditures across sectors for the three scenarios. The third scenario is the most cost-efficient compared with the other scenarios. While both optimization methods increase CC-SDG achievement by 2030, they also triple government expenditure. In scenario 2, expenditure grows to 23.9 per cent of GDP. In scenario 3, this can be reduced to 22.8 per cent of GDP while achieving an additional SDGs target. Table 6.6 depicts the price tag for each scenario, expressed in various units. Scenario 3 costs approximately $229 per person, or ETB7,200. To cover the entire population, this amounts to roughly $30 bn, or ETB1.2 tn. Proportionally, this is 22.8 per cent of GDP, or 123.7 per cent of total government expenditure. However, the model holds the 2017 total government expenditure rate constant, implying that, in 2030, the government's expenditure equals 18.4 per cent of GDP.

This model only reflects the impact of increased government expenditure and improved fiscal synergy. History demonstrates that improved technologies for social outcomes achievement also provide an important source of

Table 6.6 Scenario cost comparison, by type of expenditure

	Scenario 1	Scenario 2	Scenario 3
Percentage of GDP, at projected growth rate	6.7	23.9	22.8
Annual total growth, 2011–2030 (%), scenario-required growth rate	8.4	15.9	15.6
Annual total growth, 2011–2030 per capita (%), scenario-required growth rate	5.9	13.3	13.0
Total expenditure (US$ current)[8]	8.56 bn	30.71 bn	29.20 bn
Total expenditure per capita (US$ current)	67	241	229
Total expenditure (ETB current)	327.4 bn	1.175 tn	1.117 tn
Total expenditure per capita (ETB current)	2,109	7,572	7,199
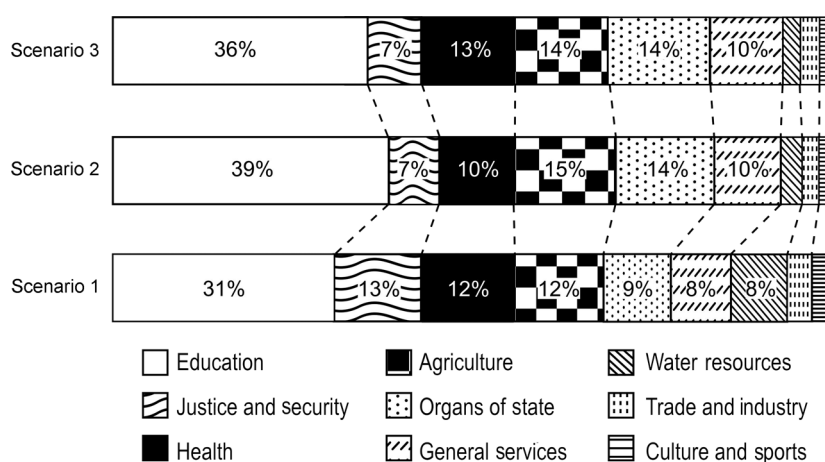
Figure 6.2 Sectoral expenditure mix in 2030, scenarios 1–3

progress and will likely reduce the cost required to achieve the SDGs. This model does not reflect that likely impact and as a result likely overstates the required cost.

Results

This chapter identifies a number of key results:

Insights from scenario 1 (business-as-usual):
- Economic growth manages to improve a wide range of child-sensitive development outcomes, but mostly for those involving universal provision of goods and services. The eradication targets are less responsive to growth.

- Increasing fiscal commitments is necessary but not sufficient for attaining the SDGs. Universal provision can be 'purchased' more easily than the eradication of well-being deficits.

Insights from scenario 2 (best practice, learning-by-doing):
- The careful adoption of best practices substantially boosts child-sensitive development, and should be an indispensable part of the government's PFM.

Insights from scenario 3 (optimizing synergies):
- The maximizing of synergy benefits offers particularly important but still largely untapped potential to achieve exceptional progress in achieving the CC-SDGs. This requires a comprehensive, multisectoral coordinated approach.

Important 'last mile' problems persist:
- No scenario fully eradicates extreme poverty or child labour, regardless of fiscal commitment, best-practice adoption, and synergies leveraged. New approaches, innovative technologies, and policies informed by 'behavioural insights' are required to achieve this progress (Banerjee and Duflo, 2011; OECD, 2013).

This chapter demonstrates that budget allocations supporting cross-sectoral synergies provide an essential contribution alongside increased fiscal expenditure in enabling the Government of Ethiopia to achieve the child-centred Sustainable Development Goals. These results corroborate recent work assessing the overlaps and synchronicities that characterize SDGs strategies (Schultz et al., 2016). We offer insights into how fiscal policies can strengthen intervention points that can lead to rapid and positive change. Particularly important for child well-being in Ethiopia are investments in education, which have been recognized as a vital driver of capability development (Hoffman, 2006). The analysis also demonstrates the high child-centred returns of investing in health, agriculture, women's empowerment, and governance. For some targets, spending means the scaling up of best practices. Several districts have already made important strides, and even achieved universal provision of public services in safe drinking water and access to modern contraception. Learning from their practices and adapting these in other contexts may prove an effective way to apply more practical evidence.

Discussion

This chapter employs an innovative approach to answer the question: 'How can complex socio-economic objectives such as the Sustainable Development Goals be costed?' The findings offer fresh insights into how fiscal allocations can strengthen comprehensive and integrated interventions that can lead to rapid and positive change. The analysis demonstrates a particularly important role for education supporting child well-being in Ethiopia, which provides a vital driver of capability development (Hoffman, 2006). Other sectors that

offer particularly high returns for child well-being include health, agriculture, women's empowerment, and governance. More important than individual investments, however, strengthening cross-sectoral synergies provides the greatest impact and the highest returns.

Silo approaches to investments in these sectors are likely to yield rapidly diminishing marginal returns. The importance of cross-sectoral synergies implies that simply calculating unit-costs for one or more sectors can seriously overestimate the costs of SDG achievement. While we document that increased fiscal commitments are necessary, integrated multisectoral approaches provide value for money and achieve the SDGs at a more affordable price. Building the necessary cross-sectoral and cross-ministerial coordination requires political will at all levels of government, including the top leadership (UNDP, 2017). Many countries have faced challenges in elevating the policy process above narrow sectoral approaches.

A comprehensive approach to developmental planning requires appropriate fiscal commitments. Substantially greater government spending will be required for Ethiopia to achieve the CC-SDGs. Encouraging evidence from cross-country empirical analysis demonstrates that greater spending feeds back into the strengthening of government capacity (Hillman, 2009). Positive feedback loops between economic development and government capacity will enable increased government spending and a virtuous economic growth circle. Today's most successful economies are spending half of their national income or even more on delivering the key social goods and services that make countries happy, healthy, and prosperous (OECD, 2018).

Developmental planning, especially the allocation and distribution of fiscal resources, needs to be informed by a robust evaluation framework that specifically assesses programme selection and integration, including the identification, adoption, and scaling up of good (and best) practices. Scenario 2 shows that relatively low-hanging fruits lie in learning from districts that are allocating optimal fiscal investments. Several districts have already made great strides in reaching important milestones. In 2011, one in six districts (14.7 per cent) had already achieved near universal provision of safe drinking water. With hundreds of districts all tackling similar challenges with devolved responsibility, local lessons of experience offer important insights into how best to achieve Ethiopia's most important challenges. At a national and district level, the important message to convey is, 'take risks, failure in the face of ambitious initiatives is acceptable: the chance of failure is the price paid for the opportunity to achieve outstanding success. A nation of ambitious and innovative risk-takers that learns from each other will provide the world with the lessons of SDG success' (UNICEF, 2019). An acceptance of the consequences of ambitious risk-taking enables innovative experimentation, which in turn nurtures the development and identification of good (and best) practices. Fertile opportunities for this kind of innovation include the elimination of child labour and the eradication of extreme poverty, which will require policy breakthroughs. Innovative policy approaches such as monitoring and evaluation-guided micro-interventions offer promise in enabling the achievement of these goals.

Sectoral investments in % of GDP (INPUTS)										Developmental Planning Matrix	
Organs of state	Women's bureau	Health	Education	Agriculture	Water resources	General services	Justice and security	Trade and industry	Culture and sports		
3.3%	0.6%	2.9%	8.1%	3.1%	0.6%	2.3%	1.7%	0.6%	0.3%		2030
T	X	R	-	X	-	-	-	-	-	0.8% Wasting	
-	-	X	T	X	-	-	X	-	T	7% Child labour	
-	-	X	T	T	X	T	-	-	-	2.4% Below median income	
X	-	T	X	T	T	-	X	-	X	21% Multidimensional poverty	
X	T	X	T	X	X	-	X	T	-	13% National poverty	
X	T	X	T	X	X	-	X	T	-	15% International poverty	
-	T	R	-		-	T	X	-	X	23 Under-5 mortality	
-	X	-	T		-	T	-	-	X	100% Sanitation	
T	-	-	-	T	-	X	-	-	-	100% Water	
-	T	X	-	T	-	-	T	-	X	100% Skilled birth attendance	
X	T	-	-		-	T	-	-	-	100% Contraception	
-	-	X	T	X	C	T	-	-	T	100% Primary enrolment	
-	T	T	-		X	-	-	-	T	100% Secondary enrolment	

Figure 6.3 Developmental planning framework, scenario 3

Note: T refers to sectoral total expenditure that has a direct relationship with the outcome, R refers to a direct relationship of recurrent spending, C refers to a direct relationship of capital spending, X refers to sectors that only have interactive relationships through other sectors, and – signifies sectors which are not included in the model in any form.

Figure 6.3 illustrates the results of scenario 3 of the macro model that informs this costing analysis, incorporated into a developmental planning matrix. The figure shows the size and mix of inputs and the outcomes they produce. The framework demonstrates that outcomes are not driven by a series of programmes or even a set of sectors but rather an entire national fiscal framework. Comprehensive and integrated development plans enable fiscal commitment linked with cooperation and collaboration across sectors to deliver unified government responses to development priorities – the Sustainable Development Goals.

Policy recommendations

These lessons inform a set of practical policy recommendations:

Recommendation #1: increasing fiscal commitments to the SDGs

Achievement of the SDGs will require Ethiopia to increase its fiscal commitments. Both scenarios 2 and 3, which generate substantial improvements in SDG achievements, require substantially greater fiscal expenditure. Although the required fiscal commitment by Ethiopia implies an investment that is

three times the size of the government's current commitment, this is affordable within the decade-plus time horizon. Ethiopia's strong economic growth trajectory enables a virtuous cycle between national income and the strength and size of the public sector, which will enable government capacity to commit and implement the SDGs.

Recommendation #2: fostering cross-sectoral synergies

The findings from this research highlight the importance of multisectoral approaches and intersectoral synergies. The conventional unit-cost approach indicates that the cost of some SDGs is unaffordable, and others unattainable. The comprehensive costing model demonstrates that cross-sectoral synergies generate efficiencies and improve value for money, predicting a substantial but affordable cost for achieving nearly all the child-centred SDGs. Identifying and strengthening cross-sectoral synergies constitutes a vital strategy for Ethiopia's achievement of the SDGs.

- Evidence demonstrates that complex challenges require approaches that build deep interlinkages among programmes that aim to achieve multisectoral targets, including those associated with the SDGs. This reality requires strong inter-agency coordination.
- Monitoring progress through cross-sectoral indicators and composite indicators such as the Human Development Index functions as an incentive system to facilitate shared accountability.
- Synergies should go beyond intra-government cooperation and should include the engagement of civil society, business, philanthropy, and academia in order to facilitate the development of a practical and shared strategy.
- Many lessons can be learned from good practices illustrated by the cross-sectoral approaches employed by various countries to address climate change as well as gender inequality, two policy areas for which policy synergies demonstrate powerful successes.
- The framework, however, intrinsically relies on data that maps the input-outcome elasticities and cross-sectoral synergies. By updating the data regularly – the current model is based on 2011 data – and improving the quality – the current model exclusively analyses sub-national patterns – the adequacy of this framework can increase significantly. The most effective way to leverage the use of such a framework is by aligning ongoing data collection processes to support these kinds of models.

Recommendation #3: maximizing the impact of SDG budgets

Budgeting practices and procedures need to be firmly rooted in Ethiopia's development strategy. Project appraisals and costed sector plans can improve the identification of projects that deliver value for money. Even proven interventions can benefit from a continuous learning-by-doing approach.

Recommendation #4: better interventions for the eradication of poverty and child labour

The complete eradication of extreme poverty (measured using the $1.90 purchasing power parity poverty line) and child labour prove to be particularly challenging issues in Ethiopia. Increased expenditure and optimum cross-sectoral coordination may prove insufficient for achieving these two targets. Better policy interventions are needed to tackle these challenges (Banerjee and Duflo, 2011; OECD, 2013). A recent UNICEF-Ethiopia report on the access of the poor and vulnerable to basic social services identified several promising interventions that have been introduced since 2011 and as such were not included in the policy production function of this analysis. Interventions and approaches such as these – and new interventions in the future – can create additional leaps in eradicating poverty and child labour.

Towards an integrated developmental planning framework

We aim to foster a discussion of the importance of comprehensive planning for the financing of sustainable development, particularly those areas which deliver children's rights and simultaneously build the cognitive capital that will drive Ethiopia's future prosperity.

Integral to this approach is the understanding that single targets (particularly those that reflect complex outcomes) often cannot be achieved through single-sector approaches. Rapid health gains can be achieved by investing in health infrastructure and health programmes, and these can bring significant and promising results, yet they are not enough to eradicate diseases completely (Gish, 1992; Tanner et al., 2015) or achieve universal access to healthcare (Chalasani and Wickramasinghe, 2013). Ethiopia's most important policy objectives require integrated and inter-sectoral responses. For example, tackling nutrition challenges requires food security, maternal care practices that ensure infants benefit from exclusive breastfeeding, complete vaccinations at easy-to-reach clinics with trained and motivated personnel, proper shelter, supportive families with sustaining livelihoods, educated caregivers, low-stress environments, and other factors that foster not only a happy childhood but also an environment in which children can grow successfully into adults who contribute completely to the social and economic life of their communities and nation.

Notes

1. This chapter draws on research completed for the project Financing the Child-Centred Sustainable Development Goals (SDGs) in Ethiopia, commissioned by UNICEF-Ethiopia and produced by the Economic Policy Research Institute (EPRI) in partnership with Zerihun Associates. The project was conceptualized, led, and quality assured by the UNICEF-Ethiopia team including Remy Pigois, Vincenzo Vinci, and Zeleka Paulos.

The Economic Policy Research Institute's team was led by Michael Samson with Karim Stephan providing the lead quantitative analysis, and with contributions from Preksha Golchha, Abebual Demilew (Zerihun Associates), Jonathan Broekhuizen, and Jesse Cohen. This chapter jointly authored by Remy Pigois, Michael Samson, and Vincenzo Vinci, reports the main policy implications drawn from the project's research.

2. A comprehensive table of indicators is presented in the Appendix.
3. For the full development of the micro-underpinnings that support the macro model developed and analysed in this chapter, see Samson et al. (2018).
4. These models are the same as those presented in Chapter 2.
5. R = 0.223; p = .254
6. A typical numerical optimization algorithm employs a grid search of the feasible set of inputs to the optimization problem, with a system of nested loops for each independent variable in the system of equations. With 10,000 increments tested for each of 13 independent inputs, the numerical analysis must evaluate the full system of SDGs outcome equations (each test involving hundreds of variable permutations) for approximately 10^{51} combinations of fiscal expenditure. A finer grid search (to exclude the possibility of local optima) will require exponentially greater computational resources.
7. Since the objective function is the sum of the indicators that achieve the threshold value, the effective optimization surface essentially 'falls off a cliff' once the threshold is achieved. Our optimization process assumes that once we achieve a particular SDG, all further resources should be allocated to achieving other SDGs rather than 'over-achieving' any SDG. This specific assumption creates the discontinuities, and effectively requires a kind of numerical analysis optimization approach (as opposed to an analytical approach).
8. With an exchange rate of 1 Ethiopian birr = US$0.03653, December 2017.

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About the authors

Rémy Pigois is an econometrician who holds a pre-doctorate diploma in Mathematics and Econometrics from the Sorbonne. Rémy has worked as actuary and economist in the finance sector, and in Ministries of Finance in Paris, Singapore, and N'Djamena, Chad. He has led UNICEF engagement in social policies in Chad, Senegal, and Ethiopia.

Michael Samson is Research Director of the Economic Policy Research Institute (EPRI), a global research institute based in Cape Town, and has worked for 34 years designing, implementing, and evaluating social protection programmes, systems, and policies. His relevant project experience includes work in 41 countries across the Global South and many related publications.

Vincenzo Vinci is Social Policy Specialist at UNICEF Ethiopia, and holds a PhD in Governance and Policy Analysis with focus on Social Protection from the University of Maastricht, and Bachelor's and Master's degrees in Economics from Bocconi University. He has served with UNICEF in Indonesia, Angola, Kenya, Mali, the Central African Republic, Malawi, and Nepal.

Appendix

Table A6.1 SDG indicators selected for this study

Goal	Target	Indicator	Indicator description
1	1.1	1.1.1	Proportion of population below the international poverty line, by sex, age, employment status, and geographical location (urban/rural). (Including analysis of relevant FGT-P1 poverty gap measures.)
	1.2	1.2.1	Proportion of population living below the national poverty line, by sex and age. (Including analysis of relevant FGT-P1 poverty gap measures.)
	1.2	1.2.2	Proportion of men, women, and children of all ages living in poverty in all its dimensions according to national definitions. (Including analysis of relevant FGT-P1 poverty gap measures.)
	1.4	1.4.1	Proportion of population living in households with access to basic services. (Including analysis of relevant FGT-P1 poverty gap measures.)
2	2.2	2.2.1	Prevalence of stunting (height for age <-2 standard deviations from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age
	2.2	2.2.2.	Prevalence of malnutrition (weight for height $>+2$ or <-2 standard deviations from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)
3	3.1	3.1.2	Proportion of births attended by skilled health personnel
	3.2	3.2.1	Under-five mortality rate
	3.7	3.7.1	Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods.
4	MDG	MDG	Gross/net enrolment rates for primary and secondary education by age, gender
	4.c	4.c.1	Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training required for teaching at the relevant level
5	5.3	5.3.1	Proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18

(*Continues*)

Table A6.1 (*Continued*)

Goal	Target	Indicator	Indicator description
6	6.1	6.1.1	Proportion of population using safely managed drinking water services
	6.2	6.2.1	Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water
8	8.1	8.1.1	Annual growth rate of real GDP per capita
	8.5	8.5.2	Unemployment rate, by sex, age, and persons with disabilities
	8.7	8.7.1	Proportion and number of children aged 5–17 years engaged in child labour, by sex and age
10	10.1	10.1.1	Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population
	10.2	10.2.1	Proportion of people living below 50 per cent of median income, by age, sex, and persons with disabilities
16	16.2	16.2.3	Proportion of young women and men aged 18–29 years who experienced sexual violence by age 18

Note: FGT-P1, Foster-Greer-Thorbecke poverty gap measure

CHAPTER 7

Weather shocks and children's growth deprivation: Understanding and mitigating the impact

Peter Agamile and David Lawson

Abstract

In sub-Saharan Africa, children continue to suffer immense welfare deprivation. We examine the effect of the poverty–weather shock nexus on children's growth deprivation using the Uganda National Panel Survey and rich spatial rainfall data. Our results show that poverty and weather shocks significantly reduce children's height-for-age and weight-for-age score. Interestingly, the results also show that the initial reduction of children's height-for-age is almost cancelled with a prolonged lag after the shock. These results provide a strong incentive to deliver social assistance to avert children's growth deprivation when exposed to negative rainfall shocks.

Keywords: weather shocks, poverty, children's growth, Uganda

Introduction

In sub-Saharan Africa (SSA), children continue to suffer immense growth deprivation despite the existence of strong policies such as the Regional Nutrition Strategy, 1993–2003 and 2005–2015 (OAU, 1993; African Union, 2005), designed to provide a framework for member states to formulate their national nutrition plans to improve children's growth. Even though SSA-wide data tend not to be as frequently updated as in other regions, in 2016, the last year for which data is available, mortality rate among children under the age of five years on the continent was estimated at 78.4 per 1,000 births, nearly double the global rate of 40.8 per 1,000 births (World Bank, 2018). Likewise, 2014 estimates show 34.1 per cent prevalence of stunting among children under the age of five years in SSA, which is considerably higher than the global rate of 22.9 per cent. Stunting negatively affects children's cognitive development, school achievement, and economic productivity in later adult life which in turn affects national economic development (Dewey and Begum, 2011). For example, a study conducted by Uganda's Ministry of Gender, Labour and Social Development (MoGLSD) and UNICEF Uganda estimates that the country loses about US$899 m worth of productivity annually due to child stunting (MoGLSD and UNICEF-Uganda, 2015).

The extensive prevalence of mortality and stunting among children under the age of five years is generally attributed to household poverty. It is common that in poor households, food and nutrition insecurity are prevalent and this has a negative impact on children's welfare. Other socio-cultural dynamics in households in terms of resource allocation also worsen the situation of children especially in poor households. For example, in typical households, priority is always given to adult members when it comes to the allocation of resources such as food. In addition to household poverty, the increasing incidence of climate change-induced weather shocks resulting in the decline of household agricultural production is fast becoming a major factor as well. The threat of weather shocks in SSA has been compounded by the fact that the vast majority of the people who live in rural areas practise rain-fed agriculture with almost no use of irrigation technologies. Household agricultural production constitutes a major source of food for most of these households and thus any exposure to agricultural production shocks directly affects household food security (Salami et al., 2010). This is especially true in Uganda where agriculture provides a larger proportion of the livelihood of many households who directly derive the food they consume from their own production.

However, there is a puzzle in attempts to study the effect of the poverty–negative weather shock nexus on children's growth deprivation in a typical smallholder agricultural household. Many studies suggest that exposure to production risks such as negative weather shocks induces most poor households to choose the cultivation of low value and low return local crop varieties. In a widely cited study, Dercon (1996) shows that in Tanzania when farmers are exposed to shocks, they tended to switch to the cultivation of low value and low return local crop varieties ostensibly because they are generally known to be tolerant to negative weather shocks. One would expect that this choice of crops that are generally adapted to the local weather conditions would insure households from any major income losses. Yet there is also a downside to this switch which is that smallholder farmers may potentially end up in a poverty trap, an outcome that may be particularly damaging for the growth of children. There are notable gaps in the literature on the examination of some of these dynamics. A better understanding of children's growth performance in the context of the poverty–weather shock nexus is critical for (re)designing policies to improve their welfare in SSA, especially as countries strive to achieve the internationally agreed global nutrition targets of reducing under-five stunting by 40 per cent by 2025 (WHO, 2014).

New insights from Uganda

Uganda provides an interesting case to examine the effect of the poverty–weather shock nexus on children's growth deprivation for three main reasons. First, general estimates show that over 50 per cent of the children under the age of five years in Uganda live in poverty (Cockburn et al., 2014), which is substantially higher than the national poverty prevalence of 21.4 per cent

according to the latest statistics (UBOS, 2017). Second, the country has experienced increased frequency of droughts in the past three decades (Masih et al., 2014). Third, the country has had an active raft of early childhood development policies since independence, such as the Uganda Nutrition Action Plan, 2011–2016, and the National Integrated Early Childhood Development Policy, 2016–2021 (see Ejuu, 2012, for a detailed review of the key policies from independence to 2011). Empirical evidence shows that investment in early childhood development significantly contributes to improving the human, social, and economic development of children in adulthood (Heckman and Masterov, 2007).

Using two waves, 2009/10 and 2011/2012, of the Uganda National Panel Survey (UNPS) data, we empirically examine the effect of negative rainfall shocks and poverty on children's growth. UNPS is part of the Living Standards Measurement Study – Integrated Surveys on Agriculture of the World Bank. We construct an individual level panel of children in households up to the age of five years. Our sample contains a total of 3,067 households and 4,624 children. The proportion of boys and girls in the sample is almost the same. A detailed summary of the characteristics of our sample is presented in Table 7.1. Our main variables of interest are the height-for-age and weight-for-age of children up to five years old. In line with international standards, these variables are recorded in the survey for all children up to the age of five years. The height of the children is measured in centimetres and the weight in kilograms. In order to construct our shock variable, we combine the georeferenced household survey data with high resolution spatial rainfall data matched at enumeration area level.[2]

Shock definition

We construct our shock variable based on the deviation of current rainfall in an area from its long-term average. To calculate our long-term average rainfall, we first extract daily rainfall from the high-resolution spatial rainfall data from Rainfall Estimates (RFE 2.0) database of the National Oceanic and

Table 7.1 Sample characteristics

Variable	2009/10	2011/12	Total
Number of households	1,546	1,521	3,067
Household size	7.31	7.17	
Number of children	2,279	2,345	4,624
Male	1,162	1,139	2,301
Female	1,117	1,206	2,323
Number of children/household	1.47	1.54	

Source: Authors' calculation – UNPS Panel 2009/10 and 2011/12

Atmospheric Administration. The RFE 2.0 rainfall database has daily rainfall data recorded for the entire African continent. Then we compute the long-term average rainfall as the seasonal mean of rainfall from 2001 (the first year for which RFE 2.0 has data) up to 2008, the last year preceding our survey data. Finally, we match the long-term average rainfall data to specific enumeration areas in Uganda using the georeferences in the UNPS data. We therefore define our shock variable as a dummy which takes the value one if current rainfall in an enumeration area is below the long-term average and zero otherwise.

The frequency of the shock variable pooled across the two waves, 2009/2010 and 2011/2012, in our sample is presented in Figure 7.1. In both years, the negative deviation of rainfall is more intense in the Central region. Although on average rainfall in the Northern region is generally low, our data shows that it has experienced less deviation from its long-term rainfall pattern compared with the other regions.

Descriptive statistics

Table 7.2 further summarizes child, household, and household head attributes and regional distributions of the sample when exposed to negative rainfall deviation shocks. Looking at the key variables, height-for-age and weight-for-age, in the setting of shocks, boys are taller and weigh more than girls. This result is not entirely surprising considering the finding of previous studies which show that households generally tend to prioritize boys to girls in household children's welfare provisions. The average age in the sample is 2.3 years. The weight of boys in the sample is higher than that of girls by 0.426 kilograms. However, the mean weight and height of children in our sample of 12.6 kilograms and 86.4 cm, respectively, are below the internationally accepted average for their age bracket of 18 kilograms and 110 cm, respectively (WHO, 2006).
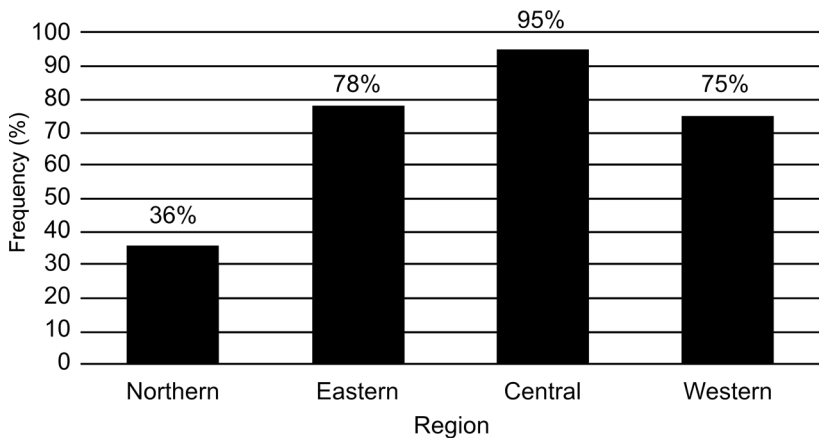
Figure 7.1 Frequency of negative rainfall shocks by region (pooled 2009/2010 and 2011/2012)

Table 7.2 Pooled descriptive statistics of children by gender when exposed to shocks

Variables	All	Boys	Girls	Difference	SE
Child characteristics					
Age (years)	2.332	2.312	2.352	−0.040	(0.042)
Weight (kg)	12.626	12.840	12.414	0.426	(0.230)
Height (cm)	86.440	86.488	86.392	0.096	(0.771)
Household head characteristics					
Age	41.700	41.635	41.764	−0.129	(0.475)
Female	0.190	0.182	0.198	−0.016	(0.014)
Married	0.875	0.886	0.864	0.021	(0.012)
Divorced	0.040	0.034	0.047	−0.013	(0.007)
Widow/Widower	0.083	0.079	0.087	−0.008	(0.010)
Never married	0.002	0.002	0.003	−0.001	(0.002)
Household characteristics					
Household size	7.387	7.323	7.449	−0.127	(0.112)
# children <5 years	2.137	2.150	2.125	0.025	(0.035)
# children >5–21 years	2.661	2.597	2.724	−0.127	(0.081)
Adult equivalent	5.014	5.011	5.017	−0.006	(0.080)
Consumption/adult equivalent	58,826.099	56,276.315	61,327.992	−5,051.677	(3,365.704)
Meals/day	2.535	2.524	2.545	−0.022	(0.023)
Food shortage	0.368	0.377	0.360	0.016	(0.017)
Poor household	0.281	0.284	0.277	0.007	(0.016)
Asset ownership					
Transport means	0.535	0.528	0.542	−0.014	(0.018)
Radio	0.728	0.721	0.735	−0.014	(0.016)
Land	0.784	0.779	0.788	−0.009	(0.015)
Area cultivated	5.470	5.700	5.243	0.457	(0.585)
Rain-fed agriculture	0.985	0.982	0.987	−0.005	(0.005)
Irrigated	0.015	0.018	0.012	0.006	(0.005)
Swamp and wetland	0.034	0.037	0.031	0.006	(0.007)
Region					
Central	0.361	0.349	0.372	−0.023	(0.017)
Eastern	0.280	0.279	0.281	−0.001	(0.016)
Northern	0.132	0.142	0.122	0.020	(0.012)
Western	0.227	0.229	0.225	0.004	(0.015)
Rural	0.818	0.826	0.810	0.016	(0.014)
Observations	3,070				

Standard errors are in parenthesis; *p<0.10, ** p<0.05, *** p<0.01
Source: Authors' calculation – UNPS Panel 2009/10 and 2011/12

The average age of the household heads is 41.7 years and only 19.8 per cent of them are female. Over 87 per cent of the household heads are married. The average household size is 7 members, with slightly more school-age children than infant ones. In terms of household consumption, the average number of meals per day stands at 2.5, which is well below the recommended 3 in Uganda. Considering that 36.8 per cent of the households report experiencing food shortage, perhaps the average number of meals consumed per day is not surprising. Consistent with the overwhelming number of households in our sample being rural dwellers, 81.8 per cent, 78.4 per cent of them report owning agricultural land. Much of their agricultural production is rain fed with almost no use of irrigation. Even with the restriction of our sample to only households with infant children, it still follows roughly the same distribution across the different regions and is representative of the whole country.

Further empirical results and discussion

We present three strands of results from our empirical analysis which we believe provide some interesting insights. The first result sheds light on the binary effect of exposure to negative rainfall shocks and poverty on children's growth. As we can see from Table 7.3, the main finding is that exposure to negative rainfall shocks significantly reduces children's height-for-age even though we do not see any significant effect on their weight-for-age score. The results for the weight-for-age may appear to be counter-intuitive but it is not entirely surprising. A related study by Block et al. (2004) found that following the 1997/98 Indonesian financial crisis when food prices rose to extremely high levels, children's weight-for-age remained unchanged throughout the shock period in rural households. We do not see any significant result for both poverty and the interaction term between rainfall shocks and poverty.

The results for the other explanatory variables are consistent with our expectation. For example, age of children increases their height-for-age and weight-for-age. As children grow, physiologically it can be expected that both their height and weight will increase. The incidence of food shortage in the household significantly reduces children's height-for-age, whereas the possession of agricultural land in the household significantly increases children's height-for-age. This could be as a result of the positive effect of production of food in the household which assures household food security.

The second strand of results examines the lagged effect of shocks on children's growth by defining two lagged shock variables: short lag whereby we examine the effect of the shock in the same wave in which it occurs, and prolonged lag whereby we examine effect of the shock in the first wave on children's growth in the second wave. Our investigations, highlighted in Table 7.4, indicate that in a short lag after exposure to negative rainfall shocks, children's height-for-age and weight-for-age suffer a significant reduction. This result supports the finding in the preceding paragraph whereby exposure to negative rainfall shocks reduces height-for-age.

Table 7.3 Fixed effect estimate of the effects of shocks on children's growth indicators

Variable	Height	Weight
Rain shock	−3.074* (1.618)	−0.305 (0.555)
Poverty	0.887 (1.619)	0.463 (0.969)
Rain shock*Poverty	−0.552 (1.621)	0.692 (0.970)
Age of child	6.201*** (0.429)	2.069*** (0.248)
Household head: Age	0.349*** (0.133)	0.091 (0.059)
Female	2.937* (1.734)	−0.076 (0.811)
Married	−1.678 (2.950)	−1.942 (1.212)
Household size	−0.490 (0.473)	0.138 (0.285)
# children <6 years	0.303 (0.701)	0.157 (0.364)
# School-age children	0.486 (0.598)	−0.365 (0.400)
Consumption/adult equivalent	−0.000 (0.000)	−0.000 (0.000)
# Meals/day	0.433 (0.322)	0.038 (0.166)
Food shortage	−2.879*** (0.621)	−0.382 (0.236)
Transport means	0.206 (1.313)	−0.505 (0.625)
Land	2.327*** (0.818)	0.469 (0.313)
Total area cultivated	−0.017 (0.045)	0.005 (0.014)
Rain-fed agriculture	−0.982 (1.971)	−0.570 (1.215)
Rural	4.885*** (1.759)	−0.195 (0.829)
Observations	2,978	2,980
Within R-squared	0.5978	0.3333

The dependent variable is children's height and weight, respectively. Robust standard errors are in parenthesis; *p<0.10, ** p<0.05, *** p<0.01

However, our results also show that children's height-for-age recovers with a prolonged lag after exposure to the negative rainfall shocks.

By disaggregating the shock variable into short and prolonged, we are able to see more effects on children's growth indicators than in the previous estimation with one aggregate shock variable. This may possibly explain why we do not see any significant effect of negative rainfall shocks on children's weight-for-age. These results show that exposure to negative rainfall shocks always has a damaging effect on children's growth in the short run. Exposure to poverty significantly reduces children's weight-for-age but has no significant effect on their height-for-age.

The third and final strand of results considers the effect of shocks on children's growth dependent on the crop production choices in their households (Table 7.5). The results show that negative rainfall shocks significantly reduce children's height-for-age and weight-for-age in households that cultivate both food and cash crops. Our results clearly show that households that spread their production across both food and cash crops may not be able to insure

Table 7.4 Fixed effect estimate of the effects of lagged shocks on children's growth indicators

Variable	Height	Weight
Short lag	−6.834*** (1.676)	−2.171** (1.071)
Prolonged lag	6.442*** (1.714)	0.844 (0.736)
Short poverty	−0.917 (2.396)	−1.233*** (0.443)
Prolonged poverty	1.680 (1.645)	1.966 (1.393)
Short lag*poverty	0.912 (1.963)	2.817* (1.478)
Prolonged lag*poverty	−0.769 (1.002)	−0.443 (0.549)
Age of child	4.180*** (0.798)	1.579*** (0.354)
Household head: Age	0.265** (0.122)	0.081 (0.057)
Female	1.527 (1.683)	0.027 (0.796)
Married	−1.553 (2.521)	−2.126* (1.159)
Household size	−0.453 (0.470)	0.165 (0.312)
# children <6 years	0.303 (0.690)	0.113 (0.380)
# School-age children	0.650 (0.611)	−0.317 (0.407)
Consumption/adult equivalent	−0.000 (0.000)	−0.000 (0.000)
# Meals/day	0.310 (0.340)	−0.024 (0.177)
Food shortage	−2.271*** (0.581)	−0.206 (0.204)
Transport means	0.542 (1.332)	−0.486 (0.686)
Land	2.029*** (0.784)	0.256 (0.328)
Total area cultivated	−0.026 (0.047)	0.006 (0.015)
Rain-fed agriculture	−1.018 (2.169)	−0.075 (1.265)
Rural	4.043*** (1.568)	0.110 (0.725)
Observations	2,978	2,980
Within R-squared	0.6128	0.3422

The dependent variable is children's height and weight, respectively. Robust standard errors are in parenthesis; *p<0.10, ** p<0.05, *** p<0.01

their consumption as suggested in the literature cited at the outset; thus children's growth suffers in these households. A possible explanation for this is that the possibility of total food crop losses which is critical for household food security is potentially higher for households engaged in both food and cash crop cultivation. This could be linked to the fact that the proportion of resources (for example land and labour) devoted to food crop cultivation is much lower in this setting than when households cultivate food crops alone. Even though we do not see any significant impact of exposure to negative rainfall shocks on the growth of children in households that only cultivate food crops, it is possible to envisage that households that solely engage in food crop cultivation allocate all their cultivable land and labour resources

Table 7.5 Fixed effect estimate of the effects of shocks on children's growth indicators by household crop choices

Variable	Food and cash crop		Food crop only	
	Height	Weight	Height	Weight
Rain shock	−6.574**	−1.257**	−3.196	−0.146
	(2.569)	(0.552)	(2.165)	(0.756)
Poverty	13.547	0.347	−1.563	0.391
	(14.310)	(1.258)	(1.843)	(1.338)
Rain shock*Poverty	−10.800	−0.304	−0.907	1.337
	(13.408)	(1.356)	(2.403)	(1.486)
Age of child	5.487***	1.811***	6.365***	2.181***
	(0.752)	(0.171)	(0.730)	(0.444)
Household head: Age	0.313	0.109	0.397	0.224
	(0.265)	(0.083)	(0.272)	(0.146)
Female	5.821*	1.968**	0.137	0.675
	(3.005)	(0.962)	(3.223)	(1.310)
Married	2.570	1.277	−0.008	−2.051
	(4.708)	(1.214)	(4.574)	(2.388)
Household size	−1.218	−0.334*	−0.967	0.419
	(1.128)	(0.188)	(0.741)	(0.499)
# children < 6 years	1.073	0.222	0.481	−0.098
	(1.639)	(0.357)	(1.124)	(0.570)
# School-age children	1.881	0.049	0.892	−0.744
	(1.518)	(0.290)	(1.050)	(0.754)
Consumption/adult equivalent	−0.000	−0.000	−0.000	−0.000
	(0.000)	(0.000)	(0.000)	(0.000)
# Meals/day	0.683	−0.120	0.560	0.029
	(1.222)	(0.405)	(0.379)	(0.198)
Food shortage	−2.664	−0.552	−2.556***	−0.132
	(2.001)	(0.491)	(0.777)	(0.351)
Transport means	−1.735	0.723	0.843	−1.121
	(2.756)	(0.518)	(1.771)	(1.031)
Land	5.712**	1.304	1.935	0.264
	(2.743)	(0.891)	(1.377)	(0.631)
Total area cultivated	0.023	0.003	−0.054	−0.053
	(0.087)	(0.012)	(0.100)	(0.038)
Rain-fed agriculture	−11.525***	−0.365	−4.095	−2.108
	(4.241)	(1.275)	(3.992)	(2.381)
Rural	9.038***	0.103	5.388*	−0.617
	(2.805)	(1.546)	(2.861)	(1.428)
Observations	662	662	2,086	2,087
Within R-squared	0.8243	0.6571	0.2654	0.5661

The dependent variable is children's height and weight, respectively. Robust standard errors are in parenthesis; *p<0.10, ** p<0.05, *** p<0.01

to the production of crops that directly contribute to the provision of household food. Therefore, these households are likely to suffer fewer losses when exposed to negative rainfall shocks than those that split their land between food and cash crop cultivation.

Concluding remarks and policy implications

With the increasing incidence of climate change-induced negative rainfall shocks in many tropical countries coupled with endemic poverty, children under the age of five years continue to suffer immense growth deprivation. Uganda has one of the fastest changing temperatures globally, and when combined with the population structure and dependence on agriculture, this may well have a disproportionate effect on rural areas that have a greater dependence on rain-fed agriculture. In this chapter we have examined the effect of poverty and negative rainfall shocks on children's growth looking at two key attributes: height-for-age and weight-for-age. Our results specifically show that negative rainfall shocks significantly reduce children's height-for-age. However, this effect is only in the short run as children's height-for-age significantly recovers for prolonged negative rainfall shocks. As has been noted in the literature (UNCEF, 2017), this result suggests that interventions to improve children's welfare when households are exposed to prolonged shocks have the potential to give positive results. Moreover, children's weight significantly reduces only when exposed to short run negative rainfall shocks. Our results provide useful insights for targeting interventions to address children's growth deprivation, especially in the immediate aftermath of exposure to negative rainfall shocks, as children's growth tends to naturally recover after a two-year lag.

Notes

1. See WHO (2008) guidelines for measuring children's height-for-age and weight-for-age.
2. An enumeration area is basically the equivalent of an administrative village in Uganda.

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About the authors

David Lawson is Senior Researcher at the Nordic Africa Institute, Uppsala; Visiting Professor at the University of Helsinki; Visiting Professor at the University of International Business and Economics, Beijing; and Associate Professor of Development Economics and Public Policy at the University of Manchester. He has 25 years of sub-Saharan Africa public policy experience, particularly in relation to policy implementation and research on extreme

poverty, having consulted and advised extensively for the DFID, OECD, UNICEF, World Bank, and as resident economic adviser in Ethiopia, Lesotho, and Uganda. He has published widely with more than 100 publications, including in leading peer-reviewed journals and six books that include *What Works for Africa's Poorest* (Practical Action Publishing, 2017), *What Works for The Poorest: Poverty Reduction Programmes for the Ultra Poor* (Practical Action Publishing, 2010), and *Gender, Poverty and Access to Justice: Policy Implementation in SSA* (Routledge, 2019).

Peter Agamile currently works as an economist at the United Nations World Food Program in Rome, Italy and is also an honorary research fellow at the Global Development Institute of The University of Manchester, UK where he earned his PhD in Development Policy and Management. His current research focuses on poverty, climate change impacts and adaptation, food and nutrition security and agricultural technology adoption with a geographical focus on sub-Saharan Africa.

Child-sensitive non-contributory social protection in North Africa

## Charlotte Bilo and Anna Carolina Machado

Abstract

This chapter presents an assessment of the child-sensitivity of non-contributory social protection programmes in Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia. Three types of programmes are discussed in more detail: cash, in-kind transfers and school feeding programmes, and non-contributory health insurance schemes. In addition, an estimation of the number of children covered by those programmes is presented. The findings indicate that despite increased efforts by the governments in the region, challenges remain to improve the child-sensitivity of existing social protection systems. Many vulnerable children are still not covered, either due to narrow targeting or due to the limited coverage of programmes.

Keywords: non-contributory social protection, Middle East and North Africa (MENA), multidimensional child poverty

Setting the scene: the case for child-sensitive social protection

Children in developing countries are more than twice as likely as adults to live in extremely poor households. They account for half of the estimated 767 million people living in extreme poverty worldwide, even though they only represent around a third of the population (UNICEF and World Bank, 2016). Yet child poverty cannot be gauged in monetary terms only, as children experience poverty in multiple dimensions that are crucial to their well-being, including access to nutrition, health, water, education, protection, and shelter. In the Middle East and North Africa (MENA) region, levels of child poverty remain alarming: according to a recent study covering 11 Arab countries, one in four children experiences acute poverty, lacking basic rights in two or more of the following dimensions: decent housing, health care, safe water, sanitation, nutrition, basic education, and information (LAS et al., 2017; UNICEF, 2018). Figure 8.1 presents the multidimensional child poverty estimates for the North African countries. It shows that the incidence is especially high in Sudan, but a significant share of children in Morocco and Algeria also live in moderate multidimensional poverty.
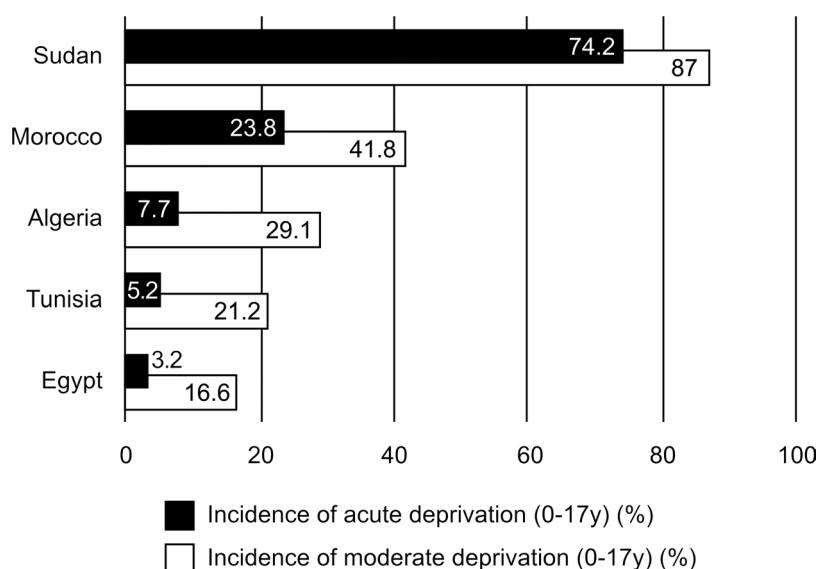
Figure 8.1 Incidence of moderate and acute deprivation for children aged 0–17
Source: Authors' elaboration based on UNICEF, 2018

Social protection policies can help address the multifaceted nature of child poverty and improve children's well-being, especially in the areas of education, health, and nutrition. However, it is important to consider the gender-, age-, and context-specific needs and vulnerabilities of children during all stages of the policy cycle. As discussed throughout this chapter, a social protection pro-gramme can be understood as having a child-sensitive design if it has at least one of the following five key features: 1) directly targeting children or families with children; 2) supporting children's food security; 3) supporting children's access to health; 4) supporting children's access to education; and 5) provid-ing additional benefits to children and/or other members of the household beyond the immediate (direct) beneficiary of the programme. These features are not mutually exclusive, and some programmes can have more than one child-sensitive design feature.

Social protection in the North Africa region is traditionally characterized by a reliance on contributory social insurance schemes and universal food, fuel, and utility subsidies. However, there is now a growing consensus that non-targeted subsidies disproportionally favour the wealthy and have little effect on poverty reduction. In a context of growing budgetary deficits and fiscal consolidation, countries such as Tunisia, Morocco, and Egypt are phas-ing out or reducing food and energy subsidies and reallocating some of the accrued savings to targeted cash transfer programmes. Such reforms can offer, in principle, a good opportunity to invest in children, with the introduction of missing child-sensitive components in social protection systems.

Research background

Drawing on a desk-review-based programme mapping conducted by the International Policy Centre for Inclusive Growth (IPC-IG) in partnership with UNICEF's Regional Office in the Middle East and North Africa (MENARO) (Machado et al., 2018), this chapter presents an assessment of the child-sensitivity of non-contributory social protection programmes in Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia. The chapter is divided into two main parts: the first consists of a brief synopsis of non-contributory social protection in North African countries, focusing on government-implemented or at least partially government-funded schemes, presenting their main features, including type of programme, target groups, and targeting mechanisms. In the second part, three types of programmes are discussed in more detail: 1) cash transfers; 2) in-kind transfer and school feeding programmes; and 3) health protection schemes. Particular attention is paid to programmes' child-sensitive design features (e.g. whether they explicitly target children, or whether they provide linkages to other sectors, such as nutrition, health, and education). In addition, the share of children covered by the different programmes is discussed.

To obtain the information presented in this chapter, two types of methodological approaches were used. First, an extensive literature review was conducted to assess the different design features of non-contributory social protection programmes in the region. This included the revision of reports from international organizations and development think tanks as well as programme-specific information made available on official government websites. Most sources accessed were in English, French, or, to a lesser degree, Arabic. All programme information was continuously shared with focal points from the respective UNICEF country offices to review and complement the information.

Second, to obtain the number of children covered by each programme, the following estimation was conducted. For programmes for which beneficiary figures are reported as total individuals, the share of children in the country was applied to estimate the number of children among the total beneficiaries. When the number of beneficiaries was reported as households, the total number of individuals benefitting from the scheme was computed by multiplying an estimate of the country's average household size by the overall number of households covered by the programme. Once the number of individual beneficiaries was estimated, the share of children in the country was applied to obtain an estimate of the number of individual children covered. This number was then compared with the total number of children as well as the estimated number of multidimensionally poor children living in the country. For the latter, a UNICEF study on multidimensional child poverty in 11 Arab countries was consulted (covering Algeria, Egypt, Morocco, Tunisia, and Sudan) (UNICEF 2018). The share of poor children that could potentially be covered was estimated by dividing the (estimated) number of children covered

by the programme by the total number of multidimensionally poor children in the country. For programmes that target specific age groups (such as those available only for school-age children), the share of children covered was compared with the number of (poor) children in the respective age group.

Several limitations need to be mentioned concerning this methodology. First, it is assumed that the share of children among the total number of beneficiaries is equal to the overall share of children in the population. Similarly, it is assumed that the average size of the beneficiary households is the same as the average household size in that country, not accounting for the fact that poorer households often have more children.

Second, it is important to note that the most recent figures on average household size refer to a different year from that of the reported beneficiary numbers. However, although population size in these countries may change, it was assumed that average household size remains fairly stable over a certain period of time – here considered as five years, on average.

Third, some programmes can have a cap per household and the overall number of people reported as beneficiaries only refers to the number of people below this cap. This means that this number is possibly smaller than the total number of individuals living in the beneficiary households. In other cases, such as old-age pension schemes, it was assumed that the benefit structure accepts only one beneficiary per household. The risk here is that this could lead to an underestimation of the total number of beneficiaries, in the event that there are households with more than one individual receiving the benefit.

Lastly, it is important to highlight that it is not possible to match the number of children covered with the number of poor children in the country, as it cannot be assumed that the children covered by the programme are indeed the poorest ones. Therefore, in this chapter we refer to 'coverage capacity', meaning that if the programme were perfectly targeted at the multidimensionally poor, it would have the 'capacity' to reach X per cent of them.

Overview of non-contributory social protection programmes in the MENA region

Types of programmes

In total, over 40 non-contributory social protection programmes were identified in the six countries analysed (including cash and in-kind transfers, school feeding programmes, health protection schemes, housing programmes, educational fee waivers, cash-for-work programmes, and universal subsidies). Algeria is the country with most schemes mapped (14 in total), followed by Morocco (9). However, it should be noted here that programmes can differ significantly in scale, benefit value, and delivery frequency. For example, while Algeria's cash-for-work (CFW) programmes Blanche Algérie and Travaux d'Utilité Publique à Haute Intensité de Main d'Oeuvre reached together

on average only about 22,206 beneficiaries yearly between 2010 and 2015 (Ministère des Affaires Etrangères et de la Coopération Internationale, 2016), Tunisia's Programme National d'Aide aux Familles Nécessiteuses (PNAFN) was significantly larger in size, reaching about 225,525 households in 2015 (CRES, 2017). Thus, having a larger number of programmes does not necessarily suggest a more comprehensive social protection system and can even reflect segmentation and lack of clear targeting criteria. Moreover, the level of benefits can vary significantly across programmes.

As can be seen in Figure 8.2, unconditional cash transfer (UCT) programmes are by far the most prevalent form of non-contributory social protection in the region. This is followed by conditional cash transfer (CCT) programmes. All countries except Libya employ at least one CCT. A significant number of countries also provide health protection programmes, such as Morocco's Regime for Medical Assistance (RAMED) or Tunisia's Assistance Médicale Gratuite (AMG). Food and fuel subsidies remain common in the region, although several countries have started implementing reforms to remove or reduce subsidies and offer more targeted cash transfer programmes, as in the case of Egypt's Takaful programme. Moreover, a total of five CFW programmes were mapped, of which three are from Algeria alone; the country's social protection system is characterized by a relatively stark reliance on CFW programmes. We also found that all countries, except Libya, have a national school feeding programme. Finally, only a few countries offer unconditional
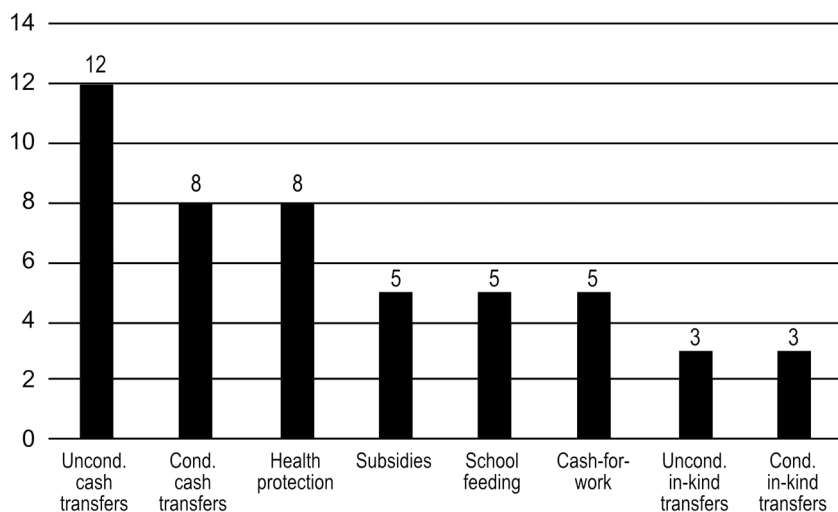
Figure 8.2 Number of programmes by programme type
Note: A programme can be classified as more than one programme type
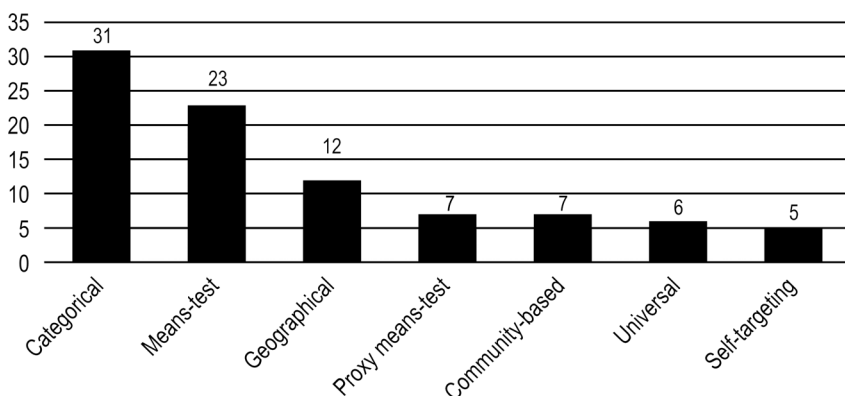*Source*: Authors' elaboration based on Machado et al., 2018

or conditional in-kind transfers, mostly in the form of food distribution programmes.

Targeting methods

As shown in Figure 8.3, categorical targeting is the most prevalent targeting mechanism used to select beneficiaries. It is commonly employed to identify families without a male breadwinner or whose adult members – particularly the head of household – are unable to work (including the elderly, people with disabilities, and widows). This is followed by means testing, which is often used in addition to categorical targeting. Geographical targeting is the third most common targeting mechanism. For example, Morocco's CCT programme Tayssir targets students in rural schools with poverty rates above 30 per cent and dropout rates of at least 8 per cent per year (see also Gyoeri et al., 2017). Proxy-means testing is gradually becoming more common in the region, and is used in several programmes that were introduced in the past 10 years (such as Takaful and Karama in Egypt, RAMED in Morocco, and Shamel in Sudan).

Target population groups

Figure 8.4 illustrates the prevalence of the different target population groups. It is important to keep in mind that one programme may target more than one group. Most programmes target poor households, followed by children. People with disabilities are the third most commonly targeted group. Five programmes are explicitly targeted at women, mostly at female-headed single households. Non-contributory pensions for poor elderly people are rare, and are provided only in Egypt and Algeria.

Figure 8.3 Number of programmes by targeting mechanism
Note: A programme can use more than one targeting mechanism
Source: Authors' elaboration based on Machado et al., 2018
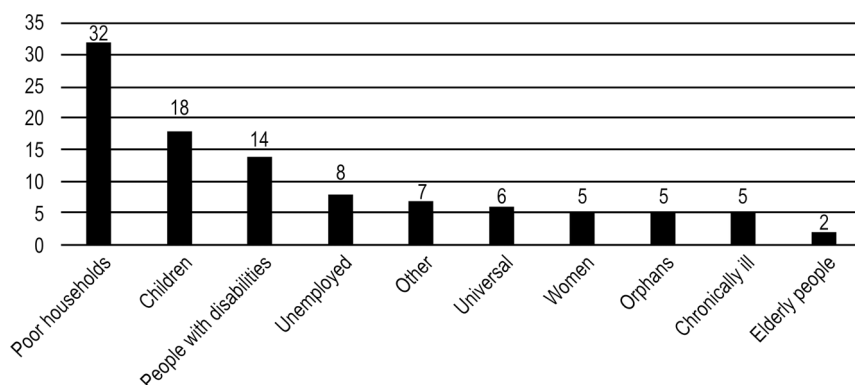
Figure 8.4 Most prevalent target population groups
Note: A programme can target more than one population group
Source: Authors' elaboration based on Machado et al., 2018

Programme analysis: child-sensitive design features and coverage of children

At least one programme in each country and more than half (23) of the programmes mapped present one or more child-sensitive design feature. Many schemes classified as child-sensitive are related to supporting children's access to education (15), including cash transfer programmes that are conditional on children's school enrolment and/or attendance and, to a lesser extent, school feeding programmes and educational fee waivers up to secondary school. However, few programmes are linked to child nutrition (five), all of which are school feeding programmes.

Non-contributory programmes promoting health care can improve poor children's access to health. They are available to vulnerable families in all analysed countries, except for Libya – where health and education services are provided, in principle, free of charge. In Algeria, health insurance coverage is extended to social assistance beneficiaries as well as persons with disability, unemployed students, and their dependants (SSA and ISSA, 2017a). In the following sections, the child-sensitive design features as well as child coverage estimations of cash transfers, in-kind transfers and school feeding programmes, and health protection programmes are discussed in further detail.

Cash transfer programmes

An increasing amount of evidence has shown the positive effects of cash transfers on child well-being outcomes (Bastagli et al., 2016). As in many other regions, they also remain the most common form of non-contributory social protection in North Africa. In the six countries analysed, a total of 19 cash transfer schemes are in place, of which most are unconditional (12), and only

eight are conditional. All countries analysed implement at least one cash transfer scheme, varying in scale, benefit value, and delivery frequency. With the exception of Sudan, all countries offer one or more cash transfer programme explicitly targeted at children (nine in total). However, UCT programmes in the region are often designed to support households without a male breadwinner or those whose head is unable to work, which explains why children are not always the focus of these programmes. Cash-based schemes explicitly targeting lactating women and younger children are still incipient in the region.

Algeria, Egypt, Morocco, and Tunisia were found to have one or more CCT programmes, of which most were introduced in the last 10 years. The majority of CCTs are linked to educational conditionalities. In this chapter, education-related CCTs include cash transfers for families with school-age children, which are conditional on school attendance or enrolment (whether verified or not), but also educational scholarships and student grants paid to individual students, with an implicit conditionality.

Some of the more recent CCT programmes include the Takaful programme in Egypt for poor households with children and the L'Appui Direct aux Femmes Veuves programme in Morocco, both introduced in 2015. In fact, scholarships and/or financial support to purchase school materials as well as CCTs linked to school attendance are the two main ways in which cash transfers tend to be linked to education. Algeria's Allocation Spéciale de Scolarité, for example, was created to incentivize school attendance among children from poor households. Similarly, Morocco's Tayssir programme was designed to minimize school dropout rates in the most impoverished regions of the country. Health-related conditionalities are less frequent in the region; only the Takaful programme in Egypt requires four visits a year to health clinics by mothers and children under the age of six.

While the benefit levels of different cash transfer schemes vary, it can be observed that it often increases according to the size of the household and, to a lesser extent, with children's age or school grade. In comparison to programmes which pay a fixed amount of benefit per household, they are considered child-sensitive here, as they take into account higher expenditure levels of larger families (and for older children). In Algeria, Egypt, Morocco, and Tunisia, cash transfer programmes were identified for which either benefits are paid per child or the benefit level increases according to the size of the household. Libya is the only country for which a universal cash transfer for children is instituted by law (according to Law no. 27 of 2013 on Allowances for Children and Wives) (SSA and ISSA, 2017b). However, there is no evidence indicating that the allowance has ever been paid as foreseen by the law.

Child coverage estimations

Cash transfers vary greatly in size, ranging from 0.5 per cent of all children under the age of 18 in Morocco (Fond d'Entraide Familiale), to 32.4 per cent in Sudan (Zakat-funded cash transfers), based on the authors' estimations.

However, most cash transfer programmes are rather small in size and reach less than 2 per cent of the respective child population. Figure 8.5 illustrates the estimated share of the children covered by a number of selected programmes as well as their estimated capacity to assist multidimensionally poor children – if programmes were perfectly targeted. Provided that there are no overlaps, for Takaful, Karama, and the Social Solidarity Pension in Egypt together, the share of children covered is estimated at 12.5 per cent, which is high in absolute terms, as the country has one of the largest under-18 populations in the region, but low in relative terms.

When comparing programmes' coverage capacity to reach the poorest in the country, different poverty levels in each country must be kept in mind. Sudan is the country with the highest poverty incidence in the region; 87 per cent of all Sudanese children are estimated to be multidimensionally poor (Kjellgren et al., 2014). Based on our estimations, the Sudanese Zakat Fund has the capacity to reach 37 per cent of all multidimensionally poor children.

In Tunisia, PNAFN is targeted at poor families whose head is not able to provide for the household. As of 2016, more than 225,000 households benefited from the programme (CRES, 2017). We estimate the coverage at 7.12 per cent of all children in the country, with the potential to reach almost 34 per cent of all multidimensionally poor children. This is explained by the fact that multidimensional poverty levels in Tunisia are relatively low (21 per cent) compared with other countries in the region (UNICEF, 2018). Reported coverage figures for 2016 show that Algeria's Allocation Forfaitaire de Solidarité programme reached about 2 per cent of children under 18. Considering that Algeria has a multidimensional child poverty incidence of 29 per cent, the programme would be able to cover 7 per cent of all vulnerable children.

There are few school allowances in the countries analysed, but they have recently become more relevant. However, these benefits target families with school-age children (commonly 6–17, or 5–15 for Tayssir in Morocco) and enrolled in school, not including families with children under the age of six and those who face other barriers to access the education system, such as supply-side deficiencies. In Tunisia, the additional monthly school allowance paid to PNAFN families with school-age children (Programme d'Allocations Scolaires, PPAS) has the potential to reach about 20 per cent of all multidimensionally poor children aged 6–17. The Back-to-School Education Benefit has a significantly larger coverage capacity, having the scope to reach 90 per cent of all school-age children estimated to be moderately poor. However, it is only paid once a year, whereas PPAS is paid monthly. Moreover, for both PPAS and the Back-to-School Education Benefit, it is important to keep in mind that the coverage figures provided can also include individuals over 18, as university students are eligible for these programmes.

In Morocco the Fond d'Entraide Familiale and L'Appui Direct aux Femmes Veuves combined (both targeted at women in vulnerable situations and their children) are estimated to cover less than 1 per cent of all Moroccans aged 0–17 (combining estimates for 2014 and 2017, respectively). Given their small

size, the programmes' capacity to reach the multidimensionally poor is also rather limited. In comparison, Tayssir covered 736,000 beneficiaries in 2017 and has the capacity to reach almost 29 per cent of the country's multidimensionally poor aged 6 to 15 (or 11.86 per cent of all children in the country). Given that Tayssir is only available to children aged 6 to 15, this suggests that children under the age of six in Morocco are less likely to have access to financial support than older children.

Algeria's Allocation Spéciale de Scolarité is a cash scheme available to poor families with children enrolled in the public education system, reaching 3 million students in 2013. Considering its size and scope, the programme is the only one in the region whose total number of beneficiaries surpasses the absolute number of vulnerable school-age children in the country, which is illustrated by the estimated coverage capacity of 140 per cent of all poor and vulnerable children aged 6 to17 (or 40 per cent of all children).
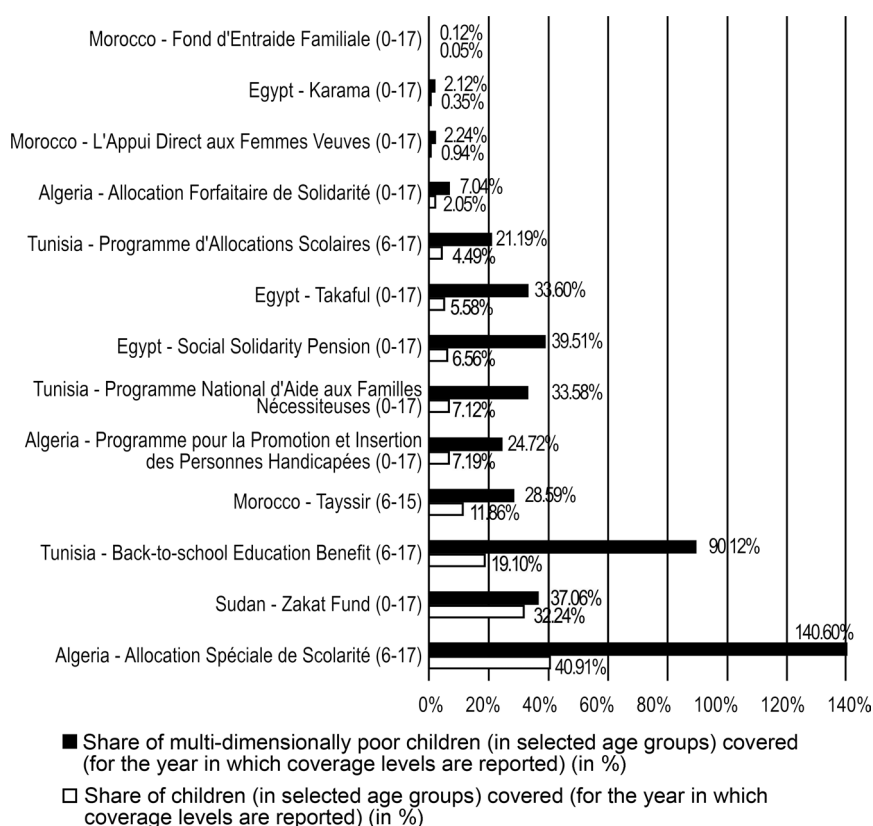
Figure 8.5 Estimated coverage capacity of multidimensionally poor children by selected cash transfer programme
Source: Authors' elaboration based on Machado et al., 2018

Overall, the region's cash transfer programmes are rather small and only a few have the capacity to reach a significant share of the most vulnerable children. This highlights once more the urgent need to expand existing cash allowances to reach all vulnerable children. Special efforts need to be made to include children under the age of six, who comprise the age group most deprived of social protection programmes and are at the same time at a higher risk of multidimensional poverty, especially in the areas of health and nutrition (LAS et al., 2017).

In-kind transfer and school feeding programmes

There is a long-standing debate about whether to use cash or in-kind (food) transfers in social protection, which has been drawing renewed attention (for a recent review, see Alderman et al., 2018). Although increasingly countries have been implementing cash transfers, food-based transfers remain a common form of social safety net. Food transfer programmes have been criticized for being less efficient and providing less choice to beneficiaries. In comparison, cash- or voucher-based transfers can boost local markets and are in general perceived as less paternalistic (Gentilini, 2016). While the costs of cash and voucher transfers are usually lower than those of in-kind transfers, it cannot be generalized that they are always more effective in combating the various forms of poverty, especially when looking at their impact on malnutrition. As Gentilini (2016) argues, design and context – including duration, frequency of transfers, and price volatility – are important factors determining the impact of any programme.

In-kind transfers[1] are less common than cash transfers, but four countries still have at least one type of either conditional or unconditional in-kind transfer. The former is commonly provided as school supply transfers conditional on school attendance. In Morocco, the *Initiative 1 Million de Cartables*, supports access to education by providing vulnerable children with school materials and supplies. The poorest and most vulnerable children in Algeria are also provided with free textbooks (*Manuel Scolaire*) and other school supplies (*Fournitures Scolaires*).

In Libya, humanitarian assistance programmes currently play a crucial role in providing essential goods and services. While most services are provided as temporary benefits to alleviate the impacts of the current crisis, a few initiatives foresee a transition to national authorities once conditions allow for it: the World Food Programme (WFP), for example, delivers food baskets to food-insecure individuals as identified in the 2015 Libya Multi-Sectoral Needs Assessment. The WFP is considering the possibility of transforming it into a cash and voucher scheme included in the national social safety net, once it is operational again (WFP, 2015). However, this has not happened yet due to security risks, limited data on food availability, and fluctuating prices in local markets (WFP, 2016a).

All countries in the region, except for Libya, have state-led school feeding programmes. While other initiatives such as water, sanitation, and hygiene

(WASH) initiatives and feeding practices are also critical for improving children's nutritional status, school feeding programmes have the capacity not only to improve the nutritional status and learning capacity of school-age children but also to incentivize their attendance (WFP, 2013). Some of the region's school feeding programmes have a long tradition, dating back to the 1950s, such as in Egypt and Morocco. The school feeding programme in Egypt receives financial support from the European Union, along with the USA, Germany, and private sector members (WFP, 2016b). In Tunisia, the WFP supports the country's school feeding programme (WFP, 2016c). In contrast, Algeria's main school feeding scheme is fully implemented and financed by the state.

Geographical targeting is used to target beneficiary schools in Egypt, Morocco, Sudan, and Tunisia. In Sudan, the national school feeding programme targets states with higher poverty rates. School feeding programmes can also help foster local agricultural production. In Tunisia, the school feeding programme is implemented in a decentralized manner. Schools oversee food procurement, thus favouring the participation of local farmers in the provision of school meals, and potentially having an impact on the local economy.

Child coverage estimations

In general, school-related programmes (especially school feeding programmes) reach larger shares of children than cash transfers. For the analysis of school-related social protection schemes, coverage estimates always take into consideration the size of the programme relative to the total school-age population in the country (children aged 6–17). Algeria's *Cantine Scolaire*, for example, reached 45 per cent of the country's school-age population in 2013. Considering the most recent figures from 2016, Egypt's school feeding programme reached more than half of the school-age population. Tunisia's school feeding programme, however, is significantly smaller, reaching only 12 per cent of all school-age children (see Figure 8.6).

In Algeria and Morocco, the distribution of school supplies has been found very relevant in terms of coverage. In Morocco, the *Initiative Royale 1 Million de Cartables* reached more than 4 million children in schools, covering half of all school-age children in the country. In Algeria, roughly a third of school-age children benefited from *Fournitures Scolaires* (in 2011) and more than half benefited from *Manuel Scolaire* (in 2014).

In general, it can be observed that school feeding programmes are the most common method to directly link a social protection programme to child nutrition. While they play an important role in supporting children's access to nutrition and have relatively high coverage numbers, these programmes reach children attending school, excluding those who are out of school and those at pre-school age. However, data shows that the latter (children under five) are especially vulnerable to malnutrition (LAS et al., 2017), suggesting that there is still significant room to improve linkages between social protection programmes and nutrition interventions.
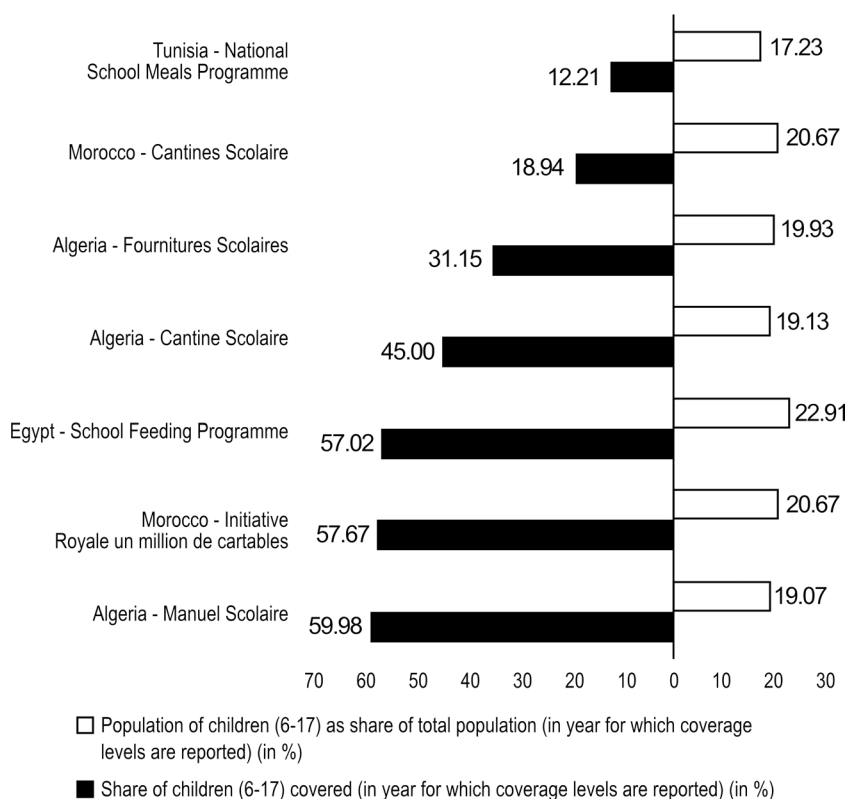
Figure 8.6 Estimated coverage of school-related programmes – children aged 6–17
Source: Authors' elaboration based on Machado et al., 2018

Health protection programmes

All countries analysed offer some form of health protection programme to the poor and vulnerable. In Morocco, RAMED covered 11.4 million individuals in 2017 (of which 48 per cent lived in rural areas) (Ministère de l'Economie et des Finances, 2017). The programme targets poor and vulnerable families who are not entitled to *Assurance Maladie Obligatoire* (AMO), a contributory scheme for workers in formal employment (Angel-Urdinola et al., 2015). It also covers residents of charitable institutions, orphanages, hospices, rehabilitation institutions and any non-profit organizations housing abandoned children or adults without family, residents of penal institutions, and homeless persons (Kingdom of Morocco, 2017).

In Sudan, for instance, the government has set a target to increase the coverage of the National Health Insurance Fund (NHIF) to 80 per cent of the population by 2020, giving higher priority to the inclusion of poor people

(NHIF, 2017). In 1996, health care insurance contributions became compulsory for those in the formal sector (those in both government and private-sector employment). The NIHF relies on the Ministry of Finance and National Economy and the Zakat Fund to pay the health insurance premiums of the non-compulsory population. The NHIF's target is to increase coverage of the non-contributory population (the informal sector) by 3 per cent per year. The Fund identifies the deprived state, and data from the poverty census of 2011, undertaken by the Zakat Fund in collaboration with the Central Bureau of Statistics, is used to identify potential beneficiaries (Kjellgren et al., 2014). In 2016, almost half of the population (43.8 per cent, 16.41 million individuals) were covered through the scheme, more than half of whom (8.78 million) were classified as poor (NHIF, 2017).

In Algeria, all social assistance beneficiaries as well as persons with disability, unemployed students, and their dependants are covered by non-contributory health insurance (SSA and ISSA, 2017a). In Egypt, the Social Pension Health Care Programme was introduced in 2015 and aimed at contributing to advance universal health coverage in Egypt. The insurance was planned to focus on the poorest 20–25 per cent of the population within the first 18 months of rollout (Joint Learning Network, 2015). However, no evaluation has been made available yet, and it is not clear how many people have been enrolled so far.

Child coverage estimations

Compared with cash transfer programmes, programmes providing access to health services tend to have higher child coverage rates in at least three countries (see Figure 8.7). Morocco's RAMED has the capacity to benefit 40 per cent of multidimensionally poor children (17.9 per cent of all children). In Tunisia, the results indicate that the AMG programme, consisting of AMG I (total free exemption for the use of health services at public health centres, for those benefiting from the PNAFN programme) and AMG II (reduced fees for other low-income households), has the potential to reach 62 per cent of multidimensionally poor children (or 32 per cent of all children). In Sudan, we estimate that the fee waivers for the Health Insurance Fund cover approximately 47 per cent of poor children (and 41.47 per cent of all children).

Although the coverage capacity of the analysed health protection programmes is rather better than that of cash programmes, many vulnerable children still remain uncovered. This is particularly worrisome against the background of the high out-of-pocket expenditure in the region, reaching more than 60 per cent of current health expenditure in countries such as Egypt and Sudan. This is extremely high when compared with an average of 30.82 per cent in the MENA region, and 36.25 per cent in the sub-Saharan African region (World Bank, 2018, all numbers refer to 2015). High out-of-pocket expenditure limits households' ability to spend income on other life necessities.
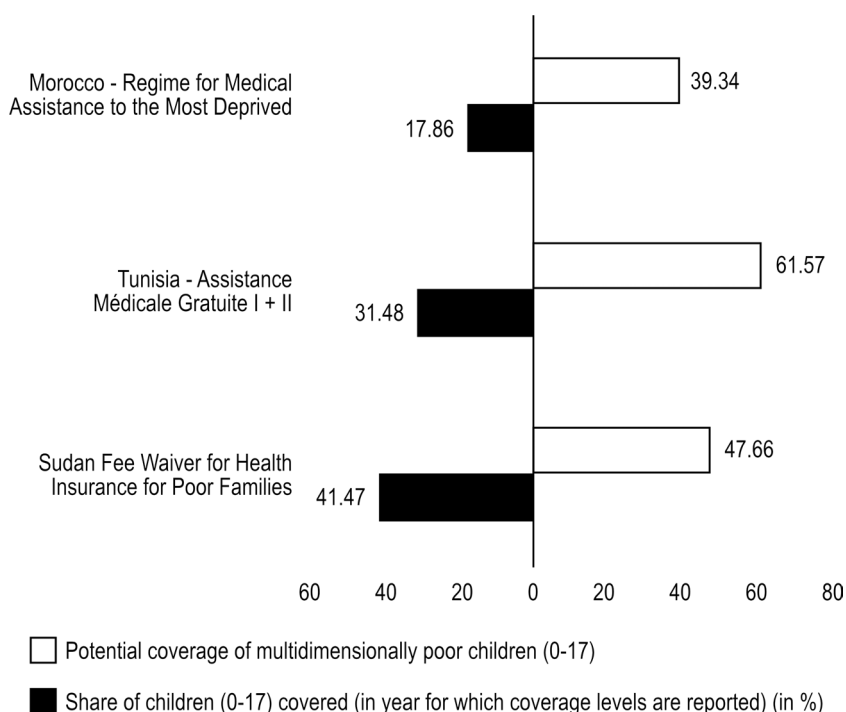
Figure 8.7 Estimated coverage capacity of multidimensionally poor children by selected health protection programme
Note: Numbers for AMG I refer to 2015 and for AMG II to 2016
Source: Authors' elaboration based on Machado et al., 2018

Recommendations and conclusions

The purpose of this chapter was to provide an overview of non-contributory social protection in six countries in North Africa (Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia) and to review three types of programmes in more detail with regard to their child-sensitivity and the number of children they cover.

Countries in the region have a long tradition of social provision for poor and vulnerable people, including those who are chronically ill, have disabilities, or are elderly, children, orphans, and widows. In recent years the region has seen the introduction of several new flagship programmes, some of which, such as *Takaful*, are partially financed by the fiscal savings resulting from subsidy reforms. Other examples, such as Morocco's *Tayssir* and Tunisia's PPAS, specifically target families with school-age children. These schemes could form the basis for broader child benefits that include children of pre-school age.

Despite increased efforts by governments in the region, challenges remain to improve the child-sensitivity of existing social protection systems. Many of

the programmes that target children are limited to school-age children. Even fewer programmes explicitly target younger children. Moreover, the high reliance on categorical targeting is likely to exclude children of vulnerable families. It is therefore necessary to rethink the targeting mechanisms currently used, to better reach vulnerable children without generating unjustifiable exclusion errors. More rigorous target analysis is needed to better understand how current targeting mechanisms can be improved.

The limited data availability in the region presents a great challenge for any incidence analysis of social protection schemes. Estimations based on the comparison between the child coverage estimations and the number of poor children in the country show that programmes are often not large enough to reach all vulnerable children. Even large-scale programmes would only have enough scope to reach less than half of all multidimensionally poor children in the country. In general, school feeding programmes and in-kind provision of school supplies have larger coverage levels than cash transfer programmes. There is a strong need to expand the existing schemes – particularly cash transfer programmes in the form of child allowances – to reach all vulnerable children. The recent subsidy reforms have opened fiscal space for more child-sensitive social protection. Other options to increase spending on social protection measures include the introduction of a more progressive tax system.

More action is required from policymakers, researchers, and the international community to improve the child-sensitivity of existing social protection systems. It is important that gender- and age-disaggregated data on all programme beneficiaries is collected through comprehensive household surveys as well as administrative databases and integrated single registries. Moreover, there is a strong need for regular child poverty studies and in-depth programme evaluations to better understand the impact of policy interventions on the different dimensions of child poverty. More rigorous targeting analyses are needed to better understand how current mechanisms can be improved to reach vulnerable children more effectively. Finally, information and evidence need to be shared across the region to facilitate learning.

Investing in social protection alone will not be enough to achieve social transformation. Ensuring the availability and quality of basic services is crucial for social protection programmes to achieve positive outcomes, especially in the areas of health and education. While the consolidation of a child-sensitive social protection system is possible, it demands a change of perspective. The information and findings in this chapter serve as a useful starting point to further support the production of evidence and encourage the constant development of social protection systems in the region to better address children's needs.

Notes

1. Note that in-kind transfers do not include food subsidies or school-feeding programmes. Also, in-kind transfers include those that are distributed directly as well as those using a voucher or card system.

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About the authors

Charlotte Bilo is a researcher at the International Policy Centre for Inclusive Growth (IPC-IG), where she currently works on child- and gender-sensitive social protection in Latin America, MENA, and South Asia. She holds a Master's Degree in Poverty and Development from the Institute of Development Studies, Brighton, UK.

Anna Carolina Machado works as a researcher at the International Policy Centre for Inclusive Growth (IPC-IG) where she has contributed to projects on social protection and child-sensitive policies. She holds an MSc in Public Policy from the University of Bristol, UK. Her research interests include social protection, child development, and poverty reduction.

CHAPTER 9

Ethiopia's Productive Safety Net Programme (PSNP) and adolescent well-being: Evidence from Gender and Adolescence Global Evidence (GAGE)

Mesele Araya, Joan Hamory Hicks, Sarah Baird, and Nicola Jones

Abstract

Aiming to support chronically food-insecure households, the Ethiopian Government launched a large-scale social protection programme known as the Productive Safety Net Programme (PSNP) in 2005. This study draws on mixed methods data collection undertaken by the Gender and Adolescence: Global Evidence (GAGE) study research team in Ethiopia during 2017–2018 to understand the relationship between PSNP benefits and young adolescents' multidimensional well-being. Our analysis suggests that the PSNP is associated with limited changes in educational and voice outcomes among adolescents, although there is some important heterogeneity by adolescent gender and geographic region across outcomes related to physical health and nutrition, economic empowerment, and the experience of violence. Our findings suggest that there is still need to complement the PSNP with an adolescent-responsive social protection strategy in an effort to improve the well-being of adolescents in Ethiopia, including the most vulnerable.

Keywords: adolescents, social protection, public works, Productive Safety Net Programme, well-being

Introduction

Ethiopia's Productive Safety Net Programme (PSNP) is one of the largest public works programmes and social protection interventions in sub-Saharan Africa (Gilligan et al., 2009). As of mid-2017, the programme had reached approximately 8 million beneficiaries, and continued to expand in both rural and now also urban areas (MLSA et al., 2017; World Bank, 2018). While most existing analysis has focused on household-level effects (e.g. Baye et al., 2014; Berhane et al., 2014; Filipski et al., 2017; Mohamed, 2017; Welteji et al., 2017),

there is also a growing body of research on child-specific effects of household participation in the PSNP in terms of nutrition, child labour, and child marriage (e.g. Tafere and Woldehanna, 2012; Debela et al., 2014; Berhane et al., 2016; Porter and Goyal, 2016; Berhane et al., 2017; Gebrehiwot and Castilla, 2018), and a fledgling strand of research on the gendered effects of the programme (Jones et al., 2010; Holmes and Jones, 2011; Holmes et al., 2011). This chapter aims to contribute to this evidence base drawing on a new data set from the Gender and Adolescence: Global Evidence (GAGE) study to explore the relationship between Ethiopia's PSNP and adolescent well-being, focusing on adolescent-specific effects, by gender and across distinct rural regions of the country.

Adolescence is a crucial time for individual maturation, not only in terms of physical development, but also in terms of cognitive, emotional, and social development. Acknowledging the importance of these pivotal changes and the significance of the global adolescent population of 1.2 billion (UNICEF, 2011), the international community is increasingly recognizing adolescence as a key time for intervention. Indeed, such investment could not only impact adolescents today, but also their future adult selves and their future children, thus realizing a 'triple dividend' (GAGE Consortium, 2017: 2). Accordingly, the focus of this chapter will be to disentangle the role of a social protection intervention – in this case Ethiopia's flagship PSNP – on adolescents' multidimensional well-being.

Ethiopia's Productive Safety Net Programme

Aiming to support chronically food-insecure households, the Ethiopian Government launched the PSNP in rural areas of the country in 2005. The PSNP is a large-scale social protection intervention providing public works employment opportunities to vulnerable households, and unconditional cash or food transfers to vulnerable households that are unable to participate in this work (due to disability or ill-health, pregnancy and lactation, and old age) (Berhane et al., 2016; Gebremariam et al., 2017). The objective of the programme is to support households through food security, with the ultimate goal of graduating food-sufficient households (GoE, 2010; Wiseman et al., 2010).

The federal government identifies *woredas* (districts) as PSNP-eligible based on historical food aid receipts. By 2016, over 260 *woredas* (out of 700) were classified as chronically food insecure, giving households in these districts a chance to be eligible for programme benefits. Individual household-level eligibility within these *woredas* is then determined by local officials, according to household history of food need and labour availability (Andersson et al., 2011). The programme initially reached 4.5 million beneficiaries, but over time has grown substantially, and by mid-2017 reached nearly 8 million (World Bank, 2018).

Recent research has explored the impact of the PSNP on household level outcomes, including the work of Devereux and Guenther (2007), Devereux

et al. (2008), Gilligan et al. (2009), Sabates-Wheeler and Devereux (2010), Andersson et al. (2011), Berhane et al. (2011), and Coll-Black et al. (2011). This growing body of evidence suggests that the PSNP has improved household well-being in terms of food security, asset accumulation, and social capital, and supported community infrastructure (including terracing, rural roads, and water points, among others).

However, positive impacts at the household level do not necessitate positive individual-level impacts, particularly for women (Holmes and Jones, 2013) and for younger household members. While distribution of gains throughout the household is possible, in the case of a public works programme like the PSNP, one might imagine that adolescent well-being (and particularly that of female adolescents) could suffer in the face of household labour contribution requirements that may impact adolescent labour contributions both external or internal to the home (i.e. childcare). Yet, little research has focused on the gendered impacts of social protection programmes on this age group to date.

Three recent studies explore programme impacts on time use and educational outcomes, focusing on children aged 6–16. Woldehanna (2010) and Tafere and Woldehanna (2012) use data collected in the Young Lives project for 12-year-olds, while Hoddinott et al. (2010) use data from the Food Security Programme Survey which consists of children aged 6–16; all three studies use matching estimation techniques. While the results are somewhat mixed across these three studies, findings generally suggest that effects of the public works employment portion of the programme may differ from effects of the direct support portion of the programme. In particular, findings from Woldehanna (2010) and Tafere and Woldehanna (2012) suggest that beneficiaries of the employment portion of the programme may have increased child time spent in paid (and sometimes also unpaid) work, while results from the Hoddinott et al. (2010) study suggest that large enough transfers may alleviate this effect. Furthermore, qualitative information collected from a small number of households in the Young Lives study indicates that the employment portion of the programme may have negatively impacted child learning.

Other recent work focuses on impacts of the programme on child nutrition. In particular, Debela et al. (2014) use panel data from northern Tigray Region during 2006–2010 to suggest that the PSNP improves short-run nutrition of under-five children, while Porter and Goyal (2016) document medium-term improvements in child nutrition as a result of the programme at the ages of 5 and 8. Using the Ethiopia Socioeconomic Survey (panel data) that contains nutritional status of children under five, Gebrehiwot and Castilla (2018) conclude that PSNP is not found to have the desired effect on child dietary diversity and nutrition, regardless of model specification.

Although there are a number of studies examining the potential contribution of the PSNP to household welfare, the findings for child-specific well-being measures are mixed, and do not focus in particular on the key development period of adolescence. Furthermore, many of the existing studies focus on

households located in the Ethiopian highlands, and few assess the impacts of the PSNP in pastoralist communities such as those in Afar and portions of rural Oromia. The present study aims to extend the existing literature, to examine adolescent-specific programme impacts across rural areas of Ethiopia, including pastoralist communities, as well as to consider the gendered impacts of the programme.

Sample and research methods

Study sample

This study draws on mixed methods data collection undertaken by the GAGE research team in rural Amhara and Oromia regions, and in pastoralist Afar, during 2017–2018. Prior to the launch of survey data collection, the GAGE enumeration team conducted a household listing in all research sites, in order to identify all adolescents living there aged 10–12 years. Adolescents were randomly selected for survey participation from this listing, and over 98 per cent of those selected were surveyed.[1]

The resulting quantitative household survey sample analysed in this study includes more than 4,400 adolescents aged 10–12 years and their caregivers from 15 *woredas* in East Hararghe (Oromia), South Gondar (Amhara), and Zone 5 (Afar).[2] Since GAGE research sites were selected based on vulnerability, almost all rural districts included in the study are PSNP programming districts. Although the GAGE survey did not select households to participate based on PSNP participation status, nearly one-fourth of GAGE sample households in rural areas are PSNP participants. Data collection was conducted in a representative subset of households in each area, with a total of 1,920 households in South Gondar (1,105 female and 815 male adolescent households), 2,010 households in East Hararghe (1,155 female and 855 male adolescent households), and 488 households in Zone 5 (278 female and 210 male adolescent households).

We also draw from qualitative research conducted by GAGE across rural areas in Ethiopia. In-depth interviews were conducted with nearly 220 individual adolescent boys and girls, their caregivers, and with key informants in selected sites in East Hararghe, South Gondar, and Zone 5 in Afar. We also carried out community mapping exercises and focus group discussions with adults and young people.

Measures of adolescent well-being

At its core, social protection entails the mitigation and management of risk and vulnerability (Devereux and Sabates-Wheeler, 2004), so as to ensure the right to a minimum standard of living. One of the primary aims of the overall GAGE research programme is to understand what works to address adolescent vulnerabilities across a range of capability domains, including education

and learning; sexual and reproductive health and nutrition; psychosocial well-being; economic empowerment; bodily integrity; and voice and agency (GAGE Consortium, 2017).

In the present analysis, we focus on key outcomes across these six domains in order to assess the relationship between the PSNP and adolescents' multi-dimensional capabilities. In particular, we explore the relationship between the PSNP and adolescent education (school enrolment, share of school days missed in the previous two weeks, and highest grade attained), physical health and nutrition (experienced 1 of 14 common health symptoms in the previous four weeks, hungry due to lack of food in the previous four weeks, and body mass index), psychosocial well-being (a generalized mental health score), economic empowerment (has had money under own control in last 12 months, hours spent performing childcare on a typical weekday, and fraction of previous day spent in leisure), bodily integrity (indicator for experienced and/or witnessed violence at home in the last 12 months), and agency (aspires to attain at least some secondary school, aspires to attain at least some university, ideal age of marriage, and ideal age to start having children).

Analytical approach

In the analysis that follows, we use a linear regression framework to understand the relationship between the PSNP and the well-being of adolescent boys and girls in Ethiopia. Our basic model is formulated as follows:

$$W_i = \beta_0 + \beta_1 PSNP_i + \beta_2 X_i + L'_i \beta_3 + e_i$$

where W_i is a measure of well-being for adolescent i, $PSNP$ is an indicator for household receives support from the PSNP, and L is a set of indicators for study location (rural Oromia, rural Amhara, and Afar). X is a set of adolescent, household, and survey characteristics, including an indicator for adolescent is female, age of adolescent, an indicator for the adolescent belonging to a household with multiple adolescents of study-eligible age, household size, an indicator for female-headed household, household head age, an indicator for household head literacy, a set of region indicators, and a set of survey month indicators. All regressions are weighted to maintain initial population proportions, and standard errors are clustered at the *kebele* level (the smallest administrative unit of Ethiopia).

We choose this saturated linear regression framework, rather than employing a matching estimation strategy as other research studying the relationship between the PSNP and household outcomes has done. Research suggests that a saturated regression framework may perform just as well as matching, if not better (Angrist and Pischke, 2008: 63). That said, we will not be able to definitively distinguish our estimates as causal in this framework. The very nature of the PSNP programme is to target households that are worse off in eligible communities, and we will not be able to fully account for this selection in the present analysis.

Results

This section discusses findings using the GAGE 2017/2018 baseline data. Results are presented in Tables 9.1 to 9.5, and complemented by qualitative research findings as relevant.

Educational outcomes

Table 9.1 presents summary statistics (Panel A, among non-PSNP households) and regression results (Panel B) on key educational outcomes for GAGE adolescents aged 10–12. Most adolescents in the study sites (85 per cent) are enrolled in school, although there is important variation across gender and geographic region. In particular, the highest rates of school enrolment are in rural Amhara (93 per cent), with much lower rates in rural Oromia (81 per cent) and Afar (62 per cent). Female adolescent enrolment lags behind that of males in Oromia (72 per cent versus 88 per cent), but is higher than male enrolment in Amhara (96 per cent versus 90 per cent) and in Afar (63 per cent versus 61 per cent). Despite the regional and gender variation in non-PSNP households across sites (Table 9.1, Panel A), we do not find any statistically significant relationship between receipt of PSNP benefits and adolescent school enrolment (Table 9.1, Panel B). However, our qualitative findings highlighted that PSNP receipt can facilitate enrolment, especially by enabling purchase of school materials necessary for attendance. As an older adolescent boy in Fedis, East Hararghe noted, 'My mother gives me some of the money and I buy chickens with it and I use the money I get selling the eggs to cover my school expenses'. Parents also noted the importance of the PSNP cash in helping them to invest in their children's education*:* 'I used the money to educate all my children' (PSNP beneficiary parent, Ebenat, South Gondar).

Across all sites, young adolescents who are enrolled in school missed roughly 1.5 days of school in the last 2 weeks, with the number of days missed much higher among adolescent males in Afar. We do not see a clear relationship between PSNP benefits receipt and proportion of school days missed, although there is suggestive evidence of a beneficial effect for males (fewer days missed). The qualitative findings highlight some of the complexity underlying these findings. Especially in female-headed households, parents noted that the support of adolescents was often critical in completing the public works labour quota.

As one mother from Ebenat, South Gondar explained:

> Of course they told us not to involve our children who are attending school in public works. But I could not manage to do all the 20 days monthly work which took at least three hours per working day since I am an old woman.

The effect on adolescent females was, however, negative (more days missed) across sites. Here our qualitative findings suggested that this could be due to

Table 9.1 Educational outcomes

	All rural areas			South Gondar (Amhara)			East Hararghe (Oromia)			Zone 5 (Afar)		
	All	Females	Males	All	Females	Males	All	Females	Males	All	Females	Males
Panel A: Summary statistics for non-PSNP households												
=1 if school enrolment at most recent session	0.845	0.826	0.861	0.929	0.961	0.897	0.807	0.718	0.876	0.619	0.631	0.610
	(0.362)	(0.379)	(0.347)	(0.257)	(0.193)	(0.305)	(0.395)	(0.450)	(0.330)	(0.486)	(0.484)	(0.489)
Fraction of school days missed in last two weeks (among enrolled)	0.141	0.136	0.145	0.118	0.106	0.129	0.158	0.177	0.146	0.251	0.152	0.314
	(0.226)	(0.226)	(0.226)	(0.172)	(0.161)	(0.183)	(0.256)	(0.285)	(0.234)	(0.376)	(0.298)	(0.408)
Highest school grade attained	3.605	3.635	3.580	3.559	3.769	3.352	3.972	3.775	4.126	1.754	1.960	1.605
	(1.875)	(1.826)	(1.916)	(1.616)	(1.477)	(1.718)	(1.923)	(2.010)	(1.839)	(1.747)	(1.822)	(1.680)
Panel B: Regression results												
=1 if school enrolment at most recent session	−0.010	0.007	−0.020	0.010	0.012	0.007	−0.039	−0.023	−0.051	0.059	0.095	0.033
	(0.016)	(0.019)	(0.023)	(0.018)	(0.012)	(0.031)	(0.024)	(0.034)	(0.036)	(0.063)	(0.078)	(0.093)
Fraction of school days missed in last two weeks (among enrolled)	0.011	0.024*	−0.002	0.001	0.011	−0.011	0.025	0.035	0.016	−0.038	0.016	−0.118*
	(0.009)	(0.013)	(0.013)	(0.010)	(0.012)	(0.015)	(0.016)	(0.026)	(0.021)	(0.033)	(0.055)	(0.060)
Highest school grade attained	0.011	−0.074	0.113	0.160	0.150	0.164	−0.130	−0.316**	0.045	0.142	−0.045	0.390
	(0.075)	(0.084)	(0.107)	(0.104)	(0.095)	(0.169)	(0.111)	(0.138)	(0.146)	(0.222)	(0.330)	(0.263)
Number of observations	4,417	2,537	1,880	1,920	1,105	815	2,009	1,154	855	488	278	210

Notes: This table presents statistics from the GAGE Baseline Survey. Panel A displays means (standard deviations) for individuals in households that were not receiving PSNP benefits at the time of the baseline interview. Panel B displays the coefficients (standard errors) for the regression of the outcome measure on an indicator for household receives PSNP benefits. Regression specifications are detailed in the text. *** denotes p<0.01, ** denotes p<0.05, and * denotes p<0.1. Highest school grade attained is measured from 0 (no school) and 1 (grade 1) to 14 (university).

care work responsibilities, given that typically mothers take on public works labour leaving their daughters to care for non-school-age offspring, while male adults tend to turn to better remunerated daily wage work in the market. Finally, there is also more substantial evidence of improvement (fewer days missed) among males in Afar (p<0.1). Our qualitative findings suggest this is because in Afar PSNP participation does not involve labour contributions, but receipt of 50 kg of grain every six months, thus not providing a conflict between adolescent boys' time spent on work versus schooling.

The last set of results in Table 9.1 present highest school grade attained. Average attainment (starting with Grade 1) is 3.6 years in rural Amhara, and 4.0 years in rural Oromia, for adolescents with an average age of 11. This points to Grade 1 entry at age 8, which is delayed compared with the compulsory age of enrolment (age 7). Young adolescents in Afar are much further delayed, with average attainment among 10–12 year olds at 1.8 years. Results presented in Table 9.1, Panel B provide some suggestive evidence that household receipt of PSNP benefits are associated with little in the way of school attainment improvements for young adolescents, and in fact lower school attainment for female adolescents in Oromia (approximately a third of a year less schooling). As we discuss in more detail in the concluding section, we are not able to tease out this result further, in the absence of survey data timing and length of PSNP benefits.

The GAGE Ethiopia Baseline Survey collected detailed information from adolescents who had never attended school, and Table 9.2 summarizes the main reasons provided. A key reason for lack of enrolment is related to parent and adolescent preferences – nearly 34 per cent of those who never attended school report that this is because either they or their household did not want them to go to school. This is likely closely related to outside opportunities for these children, whether helping around the home or working outside the home. Indeed, the third most popular reason cited for lack of school enrolment is work (12 per cent): higher for boys than girls (9.6 per cent for girls versus 16.1 per cent for boys). More than 10 per cent of the non-attendees feel that school is too distant or have safety concerns about attending. Despite the fact that primary education is free in Ethiopia, and attending primary education is compulsory by law (MoE, 1994), costs associated with schooling still appear to be an impediment to access for some, with approximately 7 per cent reporting an inability to pay basic school costs such as uniforms, books, or other supplies. Indeed, a considerable number of adolescents (16 per cent) also reported illness/disability or disability of another household member as the main cause for their never having attended school, and reasons reported for dropping out of school are broadly similar. It is worth noting, however, that adolescents with a disability were not more likely to be receiving PSNP support than adolescents without a disability (mean of 30 per cent vs. 31 per cent) suggesting that categorical targeting of the PSNP is not effective for families with a member with disabilities.

Table 9.2 Reasons for never attending school

Response	All	Females	Males
School costs are high (fees, supplies, uniform, etc.)	0.073	0.089	0.052
School too far from home, concerned about safety/discrimination	0.119	0.104	0.140
Low quality of school facilities and/or education	0.065	0.070	0.057
Parent(s) / guardian(s) don't want me to attend, not interested, school conflicts with beliefs	0.337	0.352	0.316
Working (paid, unpaid, or for household)	0.123	0.096	0.161
Migration	0.011	0.011	0.010
Own illness or disability or disability of other household member	0.164	0.156	0.176
Other reasons	0.108	0.122	0.088
Number of observations	463	270	193

Notes: This table presents statistics from the GAGE Baseline Survey.

Physical and mental health outcomes

Table 9.3 presents summary statistics and results for four key measures of adolescent physical health, nutrition, and mental health. In particular, we consider an indicator for whether adolescents have experienced 1 of 14 common health symptoms (including things like fever, persistent headaches or cough, runny nose, stomach pain, lethargy) in the four weeks preceding the survey. More than half of adolescents report at least one of these symptoms, again with some interesting regional variation (57 per cent in Amhara, 47 per cent in Oromia, and 40 per cent in Afar). There is no statistically significant relationship overall between PSNP benefits receipt and this common measure of physical health, although this masks some improvements in Amhara, where adolescents (particularly males) are somewhat less likely to have experienced any of these symptoms in the preceding month.

To assess adolescent nutrition, we present an indicator for whether the adolescent reports feeling hungry due to lack of food in the four weeks preceding the survey, as well as body mass index (BMI), which is a standard (objective) measure of longer-term child nutrition. Again we report some interesting regional and gender variation in findings. Approximately 20 per cent of adolescents among non-PSNP households report hunger in the previous month, with rates lower in Amhara (13 per cent) and Afar (13 per cent), and higher in Oromia (27 per cent). An adolescent is considered to be of low BMI for measures under 18.5 (WHO, 1995). Average BMI in our sample of adolescents is far below the normal range across all research sites, suggesting that majority of the GAGE adolescents are suffering from malnutrition.

Table 9.3, Panel B suggests that individuals in PSNP households are much more likely to report being hungry, especially females in Oromia. Particularly

Table 9.3 Physical and mental health outcomes

	All rural areas			South Gondar (Amhara)			East Hararghe (Oromia)			Zone 5 (Afar)		
	All	Females	Males	All	Females	Males	All	Females	Males	All	Females	Males
Panel A: Summary statistics for non-PSNP households												
=1 if had 1 of 14 common health symptoms in last 4 weeks	0.510 (0.500)	0.510 (0.500)	0.509 (0.500)	0.569 (0.495)	0.584 (0.493)	0.555 (0.497)	0.473 (0.499)	0.466 (0.499)	0.478 (0.500)	0.404 (0.492)	0.316 (0.466)	0.468 (0.501)
=1 if has been hungry due to lack of food in last 4 weeks	0.199 (0.399)	0.159 (0.366)	0.233 (0.423)	0.132 (0.339)	0.108 (0.311)	0.156 (0.363)	0.273 (0.445)	0.217 (0.412)	0.316 (0.465)	0.129 (0.336)	0.135 (0.343)	0.125 (0.332)
Body mass index (BMI)	15.18 (1.487)	15.22 (1.674)	15.14 (1.305)	14.89 (1.291)	14.80 (1.353)	14.97 (1.223)	15.57 (1.580)	15.77 (1.836)	15.42 (1.331)	14.51 (1.329)	14.70 (1.603)	14.37 (1.077)
Generalized Health Questionnaire (GHQ-12) Score	0.938 (1.608)	0.862 (1.590)	1.002 (1.620)	0.869 (1.530)	0.768 (1.527)	0.967 (1.527)	0.877 (1.597)	0.840 (1.588)	0.906 (1.604)	1.651 (1.879)	1.599 (1.801)	1.688 (1.936)
Panel B: Regression results												
=1 if had 1 of 14 common health symptoms in last 4 weeks	-0.025 (0.019)	-0.025 (0.024)	-0.022 (0.027)	-0.068** (0.028)	-0.054 (0.036)	-0.084* (0.047)	0.004 (0.026)	-0.019 (0.036)	0.028 (0.034)	0.050 (0.061)	0.104 (0.082)	-0.005 (0.083)
=1 if has been hungry due to lack of food in last 4 weeks	0.041*** (0.015)	0.060*** (0.017)	0.024 (0.024)	0.006 (0.018)	0.029 (0.024)	-0.018 (0.030)	0.078*** (0.025)	0.104*** (0.027)	0.053 (0.041)	-0.035 (0.044)	-0.042 (0.041)	-0.034 (0.059)
Body mass index (BMI)	-0.049 (0.055)	-0.116 (0.078)	-0.001 (0.079)	0.027 (0.079)	-0.011 (0.121)	0.073 (0.118)	-0.146* (0.087)	-0.203* (0.109)	-0.091 (0.122)	-0.043 (0.129)	-0.237 (0.192)	0.152 (0.134)
Generalized Health Questionnaire (GHQ-12) Score	-0.061 (0.067)	-0.022 (0.075)	-0.098 (0.086)	-0.044 (0.099)	0.056 (0.114)	-0.143 (0.129)	-0.031 (0.094)	-0.040 (0.103)	-0.025 (0.123)	-0.235 (0.258)	-0.272 (0.324)	-0.191 (0.269)
Number of observations	4,415	2,537	1,878	1,919	1,105	814	2,008	1,154	854	488	278	210

Notes: See Table 9.1 for general table notes. The list of common health symptoms included in the first row are: fever; persistent cough; runny nose; difficulty breathing; difficulty swallowing/throat pain; difficulty seeing or other eye complaint; stomach pain/nausea/vomiting; diarrhoea at least three times in one day; blood in stool; skin complaint such as rash/irritation/open sores; always feeling tired; constipation; and convulsions/seizures. The GHQ-12 measures mental distress on a scale of 0–12, with higher values indicating more distress.

telling is that the findings using our objective measure of adolescent nutrition, BMI, match this result – female adolescents in rural Oromia who are in PSNP households suffer from substantially lower BMI. This likely partially reflects a selection effect that our regression models do not take account of adequately. Due to lack of information on the length and timing of PSNP benefits, we are not able to push this result further.

We also explore the relationship between the PSNP and mental health, using a score from the Generalized Health Questionnaire (GHQ-12), which measures psychosocial distress on a scale of 0–12 (higher values indicating more distress). In general, adolescents indicate low levels of distress, although scores are higher in Afar than in Amhara and Oromia, and males indicate higher levels than females. We see no evidence of a statistically significant relationship between PSNP benefits receipt and this measure of mental distress across sites, although coefficients are consistently negative (indicating an improvement in mental health).

Economic and violence outcomes

Table 9.4 presents outcomes measuring economic empowerment and violence. Very few of our young adolescents have money under their control (12 per cent overall), with the highest rates in Oromia (17 per cent) and much lower rates in Amhara (8 per cent) and Afar (2 per cent). There is little evidence to suggest a relationship between this and PSNP benefits, other than a substantial increase (a near doubling) for female young adolescents in Amhara.

More interesting findings come from the next two measures, which capture adolescent time use. Across regions, young adolescents in non-PSNP households spend more than 30 minutes in a typical day performing childcare duties (more for females), and have 22 per cent of their day devoted to schooling, household, or productive duties – the remaining part of their day accounted for by sleep, personal care, eating, studying, travelling, religion, and leisure. Rural beneficiaries of the PSNP must fulfil a labour quota, and this may have direct implications for the responsibilities placed on adolescents. Indeed, we do see that in households receiving PSNP benefits, particularly in Oromia, female adolescents devote more time to childcare on a typical day, and male adolescents devote less time to leisure and personal care activities. A 15-year old boy in East Hararghe says, 'If we skip school for one day, they are not going to take measures. Besides, we have got to eat to be able to go to school so they must understand that as well.'

We do not see quantitative evidence of a time use change in Amhara or Afar regions, but qualitative research suggests there may be one there as well.

A key informant from South Gondar said, 'Children under the age of 18 years are not allowed to work because they are considered as small… But if an 8-year-old child looks physically big, they will let him work.'

Table 9.4 Economic and violence outcomes

	All rural areas			South Gondar (Amhara)			East Hararghe (Oromia)			Zone 5 (Afar)		
	All	Females	Males	All	Females	Males	All	Females	Males	All	Females	Males
Panel A: Summary statistics for non-PSNP households												
=1 if has money under own control	0.119 (0.324)	0.107 (0.309)	0.130 (0.336)	0.0846 (0.278)	0.0638 (0.245)	0.105 (0.307)	0.169 (0.375)	0.167 (0.373)	0.170 (0.376)	0.0173 (0.131)	0.0133 (0.115)	0.0202 (0.141)
Hours of childcare performed on a typical day	0.344 (0.475)	0.436 (0.496)	0.265 (0.441)	0.328 (0.470)	0.372 (0.484)	0.285 (0.452)	0.323 (0.468)	0.475 (0.500)	0.205 (0.404)	0.547 (0.499)	0.607 (0.490)	0.504 (0.502)
Fraction of day spent in non-productive, non-school activities	0.783 (0.105)	0.772 (0.104)	0.792 (0.106)	0.782 (0.0835)	0.798 (0.0724)	0.766 (0.0903)	0.793 (0.115)	0.754 (0.120)	0.824 (0.101)	0.725 (0.129)	0.716 (0.121)	0.732 (0.134)
=1 if experienced/witnessed violence at home in last 12 months	0.699 (0.459)	0.686 (0.464)	0.710 (0.454)	0.755 (0.430)	0.740 (0.439)	0.769 (0.422)	0.703 (0.457)	0.682 (0.466)	0.718 (0.450)	0.383 (0.487)	0.371 (0.485)	0.392 (0.490)
Panel B: Regression results												
=1 if has money under own control	0.020 (0.013)	0.027 (0.017)	0.012 (0.019)	0.012 (0.017)	0.052** (0.020)	-0.029 (0.024)	0.031 (0.023)	0.012 (0.031)	0.044 (0.032)	-0.015 (0.009)	-0.008 (0.010)	-0.019* (0.011)
Hours of childcare performed on a typical day	0.020 (0.019)	0.034 (0.024)	0.009 (0.026)	-0.029 (0.028)	-0.028 (0.033)	-0.027 (0.042)	0.052** (0.025)	0.078** (0.033)	0.044 (0.035)	0.021 (0.076)	0.044 (0.103)	0.021 (0.091)
Fraction of day spent in non-productive, non-school activities	-0.007 (0.005)	-0.003 (0.005)	-0.009 (0.007)	0.005 (0.007)	0.001 (0.006)	0.008 (0.010)	-0.020*** (0.007)	-0.012 (0.008)	-0.029*** (0.010)	0.007 (0.015)	0.018 (0.022)	-0.007 (0.017)
=1 if experienced/witnessed violence at home in last 12 months	-0.043* (0.023)	-0.006 (0.027)	-0.077*** (0.029)	-0.163*** (0.037)	-0.115** (0.044)	-0.213*** (0.046)	0.055** (0.026)	0.086*** (0.032)	0.032 (0.037)	-0.056 (0.056)	-0.001 (0.062)	-0.103 (0.075)
Number of observations	4,418	2,538	1,880	1,920	1,105	815	2,010	1,155	855	488	278	210

Notes: See notes from Table 9.1.

In the last part of Table 9.4, we explore experience of violence at home – whether this is violence against the adolescent or witnessing violence against the adolescent's mother. Rates of violence at home are high in Amhara and Oromia, at over 70 per cent, but much lower in Afar (38 per cent). Interestingly, there is evidence of differential changes among PSNP households across regions, with no relationship in Afar, lower levels of violence in PSNP households in Amhara, and higher levels in Oromia.

Agency outcomes

Table 9.5 presents results related to some key measures of adolescent agency. In particular, we focus on aspirations related to schooling (attainment of some secondary education, attainment of some university education), marriage (ideal age of first marriage), and fertility (ideal age of first child).

With regard to schooling, 95 per cent of adolescents hope to obtain at least some secondary education. This result is fairly consistent across gender, and for Amhara and Oromia, although rates are slightly lower in Afar (84 per cent). Substantially lower, but still significant numbers of adolescents aspire to attain at least some university education (60 per cent overall, again with lower rates in Afar at 37 per cent). There is less variation in ideal age of marriage, at 23.3 overall, 24.6 in Amhara, 22.5 in Oromia, and 20.5 in Afar – all well above the legal age. However, the qualitative research findings pointed to the fact that receipt of PSNP may inadvertently facilitate child marriage as it represents a source of stable income necessary for attracting a male partner, especially in the highlands of Amhara where land scarcity is a major factor shaping marriage arrangements. As one 15-year-old girl in Ebenat, South Gondar noted, 'If you have safety net benefits you will get a good husband. So if I get the chance to become a safety net beneficiary, I will get married with a good husband and we will live a better life'. Similarly, ideal age of first child is fairly high, at 29.8 overall, 31.6 in Amhara, 28.5 in Oromia, and 27.7 in Afar (with ideal age for females being somewhat surprisingly higher than ideal age for males everywhere but Afar). While we see no statistically significant relationship between aspirations and PSNP benefits across any of these measures, coefficients are negative for age of marriage and age of first child in Amhara and Oromia.

Concluding remarks

This chapter highlights the mixed experience of young adolescents (aged 10–12 years) with the PSNP across adolescent gender and region of residence. In general, there is some evidence of positive outcomes among PSNP households in Amhara – males are less likely to report poor health, females are more likely to report having some money that they control, and both males and females report less violence in their homes. However, we find little evidence

Table 9.5 Agency outcomes

	All rural areas			South Gondar (Amhara)			East Hararghe (Oromia)			Zone 5 (Afar)		
	All	Females	Males	All	Females	Males	All	Females	Males	All	Females	Males
Panel A: Summary statistics for non-PSNP households												
=1 if aspires to attain at least some secondary education	0.945 (0.229)	0.932 (0.251)	0.955 (0.208)	0.960 (0.196)	0.966 (0.181)	0.954 (0.210)	0.948 (0.222)	0.911 (0.285)	0.976 (0.153)	0.839 (0.368)	0.842 (0.366)	0.837 (0.370)
=1 if aspires to attain at least some university education	0.591 (0.492)	0.574 (0.495)	0.605 (0.489)	0.620 (0.486)	0.649 (0.477)	0.590 (0.492)	0.602 (0.490)	0.523 (0.500)	0.661 (0.474)	0.371 (0.484)	0.388 (0.489)	0.360 (0.482)
Ideal age of marriage	23.25 (5.130)	22.89 (5.542)	23.55 (4.731)	24.60 (5.381)	24.69 (5.947)	24.51 (4.771)	22.48 (4.906)	21.47 (4.870)	23.26 (4.792)	20.54 (2.261)	20.25 (2.238)	20.75 (2.260)
Ideal age of first child	29.79 (17.39)	31.17 (20.77)	28.62 (13.78)	31.59 (16.09)	33.80 (20.42)	29.42 (9.761)	28.52 (17.83)	29.30 (21.26)	27.91 (14.61)	27.69 (20.39)	25.94 (17.65)	28.93 (22.10)
Panel B: Regression results												
=1 if aspires to attain at least some secondary education	0.000 (0.008)	0.005 (0.012)	−0.003 (0.010)	0.011 (0.010)	0.015 (0.010)	0.009 (0.017)	−0.012 (0.012)	−0.005 (0.022)	−0.018 (0.014)	0.028 (0.034)	−0.009 (0.051)	0.061 (0.049)
=1 if aspires to attain at least some university education	−0.016 (0.023)	−0.011 (0.026)	−0.017 (0.029)	−0.018 (0.035)	−0.003 (0.036)	−0.034 (0.049)	−0.010 (0.033)	−0.014 (0.040)	−0.010 (0.039)	−0.001 (0.068)	−0.004 (0.112)	0.003 (0.084)
Ideal age of marriage	−0.045 (0.194)	−0.232 (0.233)	0.225 (0.287)	−0.077 (0.309)	−0.337 (0.417)	0.193 (0.496)	0.063 (0.288)	−0.091 (0.325)	0.311 (0.403)	0.485 (0.460)	0.398 (0.519)	0.603 (0.534)
Ideal age of first child	−0.090 (0.622)	−0.769 (0.954)	0.760 (0.880)	0.112 (0.861)	−0.441 (1.447)	0.670 (1.037)	−0.777 (0.937)	−1.397 (1.479)	−0.117 (1.156)	4.337 (2.634)	3.347 (2.067)	5.311 (6.176)
Number of observations	4,383	2,514	1,869	1,901	1,091	810	2,005	1,152	853	477	271	206

Notes: See notes from Table 9.1.

of improvements in educational outcomes or changes in aspirations related to schooling, marriage, or childbearing in this region. In Oromia, there is suggestive evidence of worse outcomes among PSNP households, particularly for females. Females in Oromia attain less schooling, report more hunger, and have lower BMIs; they also perform more childcare on a typical day, and are more likely to experience violence in their homes. We do not find much evidence of a relationship between PSNP benefits receipt and adolescent outcomes in Afar, largely because the programme involves limited transfers of grain to already highly food-insecure households.

This analysis has a number of important limitations. The GAGE baseline survey did not contain more detailed questions on PSNP benefits, such as type of benefit or length over which benefits have been received by the household. In addition, there is certainly selection in household participation in the PSNP programme – the goal of the PSNP is to provide benefits to households that are worse off in food-insecure communities. We are not able to fully account for this selection in the present analysis, and thus cannot definitively show that causality runs from PSNP benefits receipt to the outcomes that we show. That said, we do find evidence that adolescents in PSNP households are *better off* than adolescents in non-PSNP households along certain dimensions – which would be unlikely if PSNP household selection was truly successful in identifying the most at-risk households, yet PSNP benefits receipt did not impact adolescent outcomes.

Together, our results suggest limited improvements in the multidimensional well-being of adolescents in Oromia and Afar in particular, as a result of the PSNP programme. Thus, in an effort to improve the well-being of adolescents in rural and urban areas of Ethiopia, there is still a need to ensure that social protection programming is informed by a more in-depth and context-specific understanding of the multiple and intersecting vulnerabilities that adolescent girls and boys face in general, to consider the specific risks faced by the most vulnerable adolescents including those with disabilities and those at risk of child marriage, and to tailor programming accordingly.

Notes

1. The study design was approved by the George Washington University Committee on Human Research, Institutional Review Board (071721), the ODI Research Ethics Committee (02438), the Ethiopian Development Research Institute (EDRI/DP/00689/10), and the Addis Ababa University College of Health Sciences Institutional Review Board (113/17/Ext).
2. Note that GAGE also surveyed more than 2,100 adolescents aged 10–12 and 15–17 years in Debre Tabor (Amhara), Ziway (Oromia), and Dire Dawa cities, but encountered very few PSNP households in urban areas, likely due to the comparatively low coverage there at the time of data collection (both Dire Dawa and Ziway are urban PSNP pilot sites). We focus on the rural data collection in this chapter.

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About the authors

Mesele Araya is an Assistant Professor of Economics at Addis Ababa University, and a GAGE Research Fellow. His research interests focus on human capital formation, social protection, the labour market, poverty and inequality, and skills formation.

Joan Hamory Hicks is an Assistant Professor of Economics at the University of Oklahoma. Her research primarily focuses on transitions to adulthood among youth in low income countries, and has been published in outlets such as the *Quarterly Journal of Economics* and the *European Journal of Political Economy*.

Sarah Baird is an Associate Professor of Global Health and Economics at George Washington University. Her research focuses on the microeconomics of health and education in low- and middle-income countries with an emphasis on gender and youth, and has been published in the *Quarterly Journal of Economics* and *The Lancet*.

Nicola Jones is the Director of the DFID-funded nine-year global mixed-methods Gender and Adolescence: Global Evidence research programme. Her expertise lies in the intersection of gender, age, and social inclusion and social protection, in developmental and conflict-affected settings. She has published widely including more than 30 peer-reviewed journal articles.

CHAPTER 10

Social protection for livelihood sustainability in Ghana: Does the LEAP cash transfer eradicate extreme poverty?

Prince Osei-Wusu Adjei, Richard Serbeh, and Joyce Osei Adjei

Abstract

In this chapter, we examine the extent to which Ghana's Livelihood Empowerment against Poverty (LEAP) intervention eradicates extreme poverty within the scope of social protection and livelihood sustainability. A cross-sectional case study design has been employed, focusing on experiences from selected LEAP beneficiary districts in the Ashanti Region of Ghana, and this has been analysed using both qualitative and quantitative techniques. Based on findings from the study, we argue that LEAP implementation in Ghana has greater tendency to enhance the consumption capacity of beneficiary households through conditional cash transfers. At the same time, without any supplementary livelihood assets for the extreme poor, LEAP undermines the productive capacity of its beneficiaries, thereby creating spaces for deepening livelihood vulnerabilities and continued dependence of the extreme poor on cash handouts. In this regard, complementary interventions that look beyond conditional cash transfers to include skills and technology transfers for empowerment against poverty could guarantee livelihood sustainability for extreme poverty eradication.

Keywords: social protection, livelihood sustainability, cash transfers, extreme poverty, empowerment

Introduction

About 769 million people, representing 10.7 per cent of the world's population, subsist on less than 2 dollars a day (World Bank, 2016), and close to 795 million people out of the world's 7.3 billion people remain undernourished (FAO, 2015). Nearly 22,000 children die each day because they are too poor to stay alive (Sachs, 2005), while 1 billion out of the 2.2 billion children in the world live in poverty (Shah, 2013). These children struggle to acquire education to enable to them escape traps of poverty and contribute their quota towards livelihood sustainability, and advancement of both their countries

and the world at large, making their future even more ruinous. In the face of chronic poverty, the global population is estimated to grow beyond 9 billion by the year 2050, with that of the developing world expected to rise from 5.6 billion in 2009 to 7.9 billion in 2050 (Majeed, 2017). Thus, more people will be added to the cluster of the global poor, particularly in developing regions where a higher percentage of the increase is expected to occur. Poverty levels in most African countries are already high, pervasive, and chronic, affecting a large proportion of society (Uma and Eboh, 2013), and sub-Saharan Africa continues to experience greater escalating poverty in both absolute numbers and severity than in any other region except South Asia (Forsac-Tata et al., 2015). The various dimensions can be seen in a complex system, which demands an intentionally systematic approach to address it.

Following the World Summit on Social Development at Copenhagen in 1995, poverty eradication has been described as ethically, politically, and economically imperative; extreme poverty eradication has since remained one of the core pillars of social development globally. Extreme poverty and livelihood vulnerability remain major developmental challenges in most developing countries, in spite of progress made in countries such as China and Vietnam in the last few decades. Empirical evidence on poverty reduction in developing countries shows that the decline observed since the UN Millennium Declaration in September 2000 has not been uniform within and between countries. For the developing countries of South Asia and sub-Saharan Africa, where the highest proportion of the world's poor are concentrated, the challenge of reducing poverty has been particularly daunting and economic growth in these regions has been relatively feeble. In most African countries for example, extreme poverty still attracts the attention of both government and non-governmental organizations as they strive to actualize the Sustainable Development Goals (SDGs) by 2030. Nonetheless, even with radical social protection policy measures, many countries in the region still grapple with extreme poverty and livelihood vulnerabilities. In most of these countries, extreme poverty and vulnerability manifest in forms of 'streetism', hunger, child labour, and people with various forms of disability whose daily survival strategy has been highway beggary (Adjei et al., 2012). Ghana is no exception. Even though Ghana was among the few African countries that had been making significant progress in poverty reduction post-2000 towards achieving Goal 1 of the Millennium Development Goals (MDGs) on eradication of extreme poverty and hunger, the consequences of the 2008 global financial, food, and fuel crises, and the subsequent recession, have threatened the poverty reduction gains recorded. According to the 2010 World Bank Development indicators, some 64 million people were added to the extreme poverty, population due to this economic crisis. The rise in extreme poverty particularly in sub-Saharan Africa, substantially increased the challenge of meeting the MDGs' target of halving the number of people in extreme poverty and hunger, making it necessary for world leaders to re-strategize through social protection policies (UNRISD, 2010). In response to the rise in livelihood stressors and

shocks due to the global economic crises in 2008, the Government of Ghana introduced the Livelihood Empowerment against Poverty (LEAP) as a social protection intervention to address extreme poverty and livelihood vulnerability. Initiated in 2008 as a flagship programme of the National Social Protection Strategy (NSPS), the LEAP programme is designed and implemented as a conditional cash transfer intervention. Over a decade after its implementation, we consider it imperative to verify the viability of LEAP in achieving its prescribed policy objectives and to draw lessons for development planning in Ghana in particular and Africa in general. In this chapter we have used experiences of LEAP beneficiaries drawn from selected municipal areas in the Ashanti Region of Ghana to examine the impacts and challenges associated with the implementation of the intervention in the context of social protection following the livelihood sustainability analytical framework.

Cash transfer as social protection for the poor: a theoretical context

Conceptual issues

The concept and practice of social protection in many countries have advanced at an astonishing pace over the last few decades. However, how social protection is defined has varied between broad and narrow perspectives (Adjei et al., 2012). The United Nations defines social protection as:

> a set of public and private policies and programmes undertaken by societies in response to various contingencies to offset the absence or substantial reduction of income from work, provide assistance to families with children as well as provide people with basic health care and housing (United Nations, 2000).

It is underpinned by shared fundamental values concerning acceptable levels and security of access to income, livelihood, employment, health and education services, nutrition, and shelter. Social protection interventions have often taken the forms of social insurance policies such as unemployment benefits and pensions, which aim to support people who for reasons of age, the business cycle, or other circumstances outside the wage economy cannot work; and social assistance policies aimed at helping the poorest in society to improve their livelihoods (World Bank, 1997). Regardless of the form they take, social protection interventions are often designed to address vulnerability and risk, and levels of absolute deprivation deemed unacceptable; they become a form of response, which is both social and political in character (Conway et al., 2000; Cichon et al., 2004; Sabates-Wheeler and Haddad, 2005). According to Barrientos et al. (2005) the concept of social protection as perceived in social policy in developing countries has a number of common basic features. These features invariably focus on poverty prevention and reduction, and acknowledge the variety and heterogeneity of hazards, risk, and stress affecting individuals, households, and communities. Thus, social protection

policies currently pay particular attention to the multidimensional nature of poverty on the premise of basic rights for protecting the extreme poor and vulnerable in society.

Cash transfer interventions have assumed a cardinal place in social protection discourse in recent years. In developing economies, the cash transfer has become a basic means of social protection for people disadvantaged in terms of wealth, location, age, or gender (Debrah, 2013; ODI, 2016; Banerjee et al., 2017).

While there were over 130 unconditional cash transfer programmes, the number of conditional cash transfers increased from 27 in 2008 to 63 as of 2015 in the developing world (Honorati et al., 2015). In sub-Saharan Africa for instance, cash transfers have become increasingly popular, with 40 countries adopting such programmes to combat persistent deprivation.

Three main factors have underpinned social protection through the cash transfer revolution. First, there is consensus that despite its opportunities, globalization exposes households to livelihood stresses and shocks such as food and fuel price volatility that may push many into extreme poverty (ODI, 2016). In such contexts, cash transfers provide some form of protection against short-term poverty. Second, a wealth of empirical research shows that cash transfers can provide routes to escape persistent poverty partly by leveraging gains in non-income, human development outcomes. Third, there is recognition that cash transfers are more efficient in addressing problems such as food insecurity and malnutrition among poor households. Given the perceived benefits, optimists assume that perhaps the goal of a safe and poverty-free world depends partly on increasing the coverage of social protection through cash transfer interventions.

The increasing popularity of cash transfer programmes has generated debates on their effect on extreme poverty eradication. However, the effects of cash transfers are subject to more than one interpretation, and scholarly views have largely been contradictory. A popular view supporting the cash transfer momentum is that such programmes assist in the removal of livelihood constraints among the extremely poor (Gertler et al., 2012; Kabeer, 2012; Banerjee et al., 2017). Conversely, by adopting a long-term perspective, critics have cautioned against this feel-good appeal by showing that cash transfers do not engender any significant poverty reduction outcomes (Debrah, 2013). In addition to these conflicting viewpoints, there is a recent school of thought which suggests that despite their underlying weaknesses, cash transfers may better attenuate deprivation when integrated with other programmes, hence they should not be jettisoned from the poverty reduction bandwagon. These viewpoints are examined in the ensuing sections.

The nexus of cash transfer and poverty reduction

Euphoria surrounding cash transfers is based on rational rubric that funds transferred to the poor lead to short- and long-term poverty reduction (Kabeer et al., 2012; Banerjee et al., 2017). Existing literature identifies several pathways through which these poverty reduction potentials are experienced.

First, cash transfers reduce liquidity constraints, increasing the poor's access to goods and services. Research shows that liquidity constraint is a major manifestation of poverty that profoundly affects the poor's access to goods and services. Inadequacy of access thus becomes the upshot of the limited incomes of the poor. The poor are often classified as those with inadequate access to education, health, water, and good sanitation. By increasing their purchasing power, cash transfers improve demand for goods and services by the poor (Adelman et al., 2008; ODI, 2016). For instance, in a study of the Youth Opportunity Programme in Uganda, the Innovation for Poverty Action (IPA) found that beneficiaries had incomes 41 per cent higher than non-beneficiaries (IPA, 2018). With increased income security, beneficiaries are more likely to obtain goods and services necessary for their well-being. Regarding education for instance, households may be able to pay fees or other costs associated with school attendance for children. This may directly reduce the burden placed on children to contribute to family income and thus reduces rates of absenteeism (ODI, 2016). Similarly, when measured by increases in school enrolment and use of health services, the ODI (2016) has reported that social protection through cash transfers improves poor children's access to education and health. Stewart and Handa (2008) have also observed that a steady flow of funds for poor households in Malawi increased school enrolment by 5 per cent among children between 6 and 17 years.

Besides limiting access to goods and services, liquidity and credit constraints reduce investment among the poor; the poor's inability to invest in livelihood activities partly accounts for the limited access to food, good quality health care, and education facilities for their children (Asfaw et al., 2012; Tirivayi et al., 2013). Owing to this, strategies for improving household productivity and capacity for income generation among the poor require removal of this barrier. Although microfinance can increase the capitalization of the poor, high interest rates and cost of accessing loans make this a less preferred alternative (Bateman and Chang, 2009). In such contexts, cash transfers could assist the poor to invest in multiple livelihood activities. In Mexico for example, social protection through cash transfer opportunities for the poor improved investments in productive livelihood activities (Gertler et al., 2012). According to Gertler et al. (2012), such investments in productive assets increased households' income by approximately 10 per cent after barely 18 months, and increased capitalization of the poor by improving their creditworthiness. Thus, in directly providing finance for investments, cash transfers indirectly improve access to financial products such as loans.

Poverty reduction instead of economic growth is the major priority of cash transfer programmes (ODI, 2016). This notwithstanding, theoretical arguments suggest that the effects of cash transfers transcend non-income indicators of well-being. By stimulating demand, cash transfers indirectly strengthen micro-level growth processes. This view is based on the assumption that an increase in demand for goods and services resulting from the rise in purchasing power provides a ready market for local consumers. With such

a market, local producers may increase productivity, leading to the growth of the domestic economy over time. Thus, besides the gains in non-income indicators of well-being, cash transfers may act as a medium for removing demand-side constraints to economic growth at the micro-level.

Downsides of cash transfers for extreme poverty eradication

Despite the assertiveness of optimists' claims, the cash transfer revolution has been subjected to a number of criticisms. First, scholars with dissenting views have argued that funds given to the poor often do not provide enough prospects for livelihood enhancement. The logic behind this is that money in the hands of the poor will not always translate into improved living standards because, improved well-being is a product of a number of factors, including the types of goods purchased. Proponents of this view distinguish between economic and temptation goods, asserting that when transfers are spent on the latter, poverty reduction at the household level is not achieved, since such goods do not have significant impacts on general well-being. This perspective cautions against a unilateral characterization of the relationship between cash transfers and poverty reduction. Hence, policymakers and stakeholders must consider important factors such as types of goods consumed and patterns of consumption in order to tailor funds to poverty reduction outcomes at the household and individual levels.

It is further argued that due to the exclusive emphasis on continuous provision of a minimum income to the poor, cash transfer programmes ignore some key requirements, without which such transfers may have little poverty reduction effect. For example, Shah (2015) argues that poverty reduction inter alia requires empowerment, and the creation and expansion of opportunities that support translation of the poor's aspirations into tangible livelihood outcomes. Of particular importance to such a strategy is the acquisition and development of capabilities and skills, without which the poor may be unable to create investment opportunities. Without this consideration, cash transfers may condemn the poor to being mere recipients of funds in perpetuity. In such contexts, cash transfers may fail to remove the barriers to long-term human capital development.

Making social protection through cash transfers work for the poor

Arguments advanced against exclusive focus on transfers have led to a growing recognition that although such programmes can assist the poor to escape short-term poverty, they may have a higher degree of success when they are integrated with others, particularly skill development and transfer of productive assets. Successful long-term poverty reduction requires increasing and strengthening the capabilities of the poor in order to maximize opportunities associated with the transfer of a steady income. Drawing on Sen's capability approach, poverty reduction involves the removal of 'unfreedoms' which

in most cases are a combination of income and non-income constraints. According to this logic, cash transfers must be integrated with programmes that aim at building and strengthening the capabilities of the poor. This approach could transform structural factors that produce and sustain persistent poverty. Thus, the response to the weaknesses of cash transfers does not lie in their withdrawal, but rather redesigning them to reflect the salient livelihood assets and capabilities without which social protection impacts on extreme poverty eradication may be minimal (Peprah et al., 2017). The power of this transformative social protection approach lies its recognition of the benefits of cash transfers, while it also identifies the structural dynamics of poverty and proffers sustainable means of addressing such issues to make extreme poverty eradication effective (World Bank, 2011; McCord, 2012). By integrating the underlying structural causes of poverty into the design and implementation of social protection, developing country governments and international development partners would be more successful in reducing the constraints on livelihood sustainability for the extreme poor. This integrative approach can contribute to economic development both directly, through increases in productive capacities and empowerment of the poor to engage in livelihood activities, and indirectly, by spurring innovation (Hanushek and Woessmann, 2012).

Case study design and methods

### *Data collection and analysis*

This study followed a cross-sectional case study design using the mixed methods approach. Both primary and secondary data sources were employed to gather relevant data for analysis and discussion. Primary data were obtained from 310 LEAP beneficiary households drawn from 10 purposively selected communities in four municipalities where the intervention has been implemented over time in the Ashanti region of Ghana. Dadientem and Ofoase communities were chosen from Ejisu-Juaben Municipality; Palele and Quamariya communities were chosen from Asokore-Mampong Municipality; Konongo, Odumase, and Patriensa communities from Asante-Akyem Central Municipality; and Kyeremfaso, Mprim, and Mampong communities from Mampong Municipality. Among the communities involved in this study, Mampong, Odumase, Konongo, Palele, and Quamariya are urban localities, whereas Mprim, Patriensa, Dadientem, Ofoase, and Kyeremfaso are rural localities. The four municipalities studied were considered appropriate and suitable for study due to the varied experiences of LEAP implementation and their easy accessibility for primary data. Primary data were gathered using focus group discussions (FGDs), interviews, and questionnaire administration in the selected communities. Relevant reports and publications were reviewed to set appropriate scholarly context for this case study. Descriptive statistics including percentages, frequencies, and cross-tabulation were used to analyse

relevant quantitative data, whereas context analysis with direct quotations and transcription were employed for qualitative data analysis.

Analytical framework

Analysis of relevant field-based data was guided by the Sustainable Livelihood Framework (SLF) associated with the UK Department for International Development (DFID). The SLF over the past two decades has increasingly become a key component of the discourse on poverty reduction. The framework provides a holistic and integrated perspective on the processes by which people achieve (or fail to achieve) sustainable livelihoods (Scoones, 1998). Livelihood in this context entails the capabilities, assets (material and social), and activities required for a means of living (Chambers and Conway, 1992). Given this, livelihoods become sustainable when they can cope with and recover from stresses and shocks, while maintaining their capabilities and assets without degrading supporting ecosystems (IDS, 1996). Within any particular context (individual, household, village, regional, or national scale) the DFID identifies livelihood vulnerabilities that cause stress and shocks; assets (human, physical, natural, social, and financial) necessary for one to engage in a productive livelihood activity; institutional and organizational structures; livelihood strategies (farm or non-farm activities); and livelihood outcomes (representing desirable expectations from livelihood assets and activities) as key components of the SLF (refer to Figure 10.1). The fundamental premise is that people combine a number of resources (assets) through livelihood strategies to achieve desired and sustainable livelihood outcomes. Thus, the functional interrelationships that exist between the various components necessary to achieve sustainable livelihood or poverty reduction are of much importance in this framework. In this regard, the SLF adopted for presentation and analysis of the study results is not merely an accidental listing of elements, but rather identifies key functional interrelationships between the elements, which have significant implications for the outcomes. Hence, to appreciate these functional interrelationships when adopting the SLF in this study, the following questions became relevant for data gathering and analysis: what causes poverty and vulnerability within households? What assets or resources are provided to empower the poor to become productive? How are the poor able to translate requisite and available assets into productive livelihood activity to derive desirable outcomes in a sustainable manner?

The SLF is suitable for poverty analysis at all levels (Scoones, 1998). When considered as a sustainable livelihood outcome, poverty reduction may result from a combination of resources (natural, physical, financial, social, and human) and strategies. However, formal and informal institutional structures operating within the environment in which the poor are located can influence resource accumulation and strategies adopted to engender livelihood outcomes. In the case of social protection, cash transfers represent financial assets, which may yield livelihood outcomes such as poverty reduction and improved well-being. However, the realization of this outcome is dependent
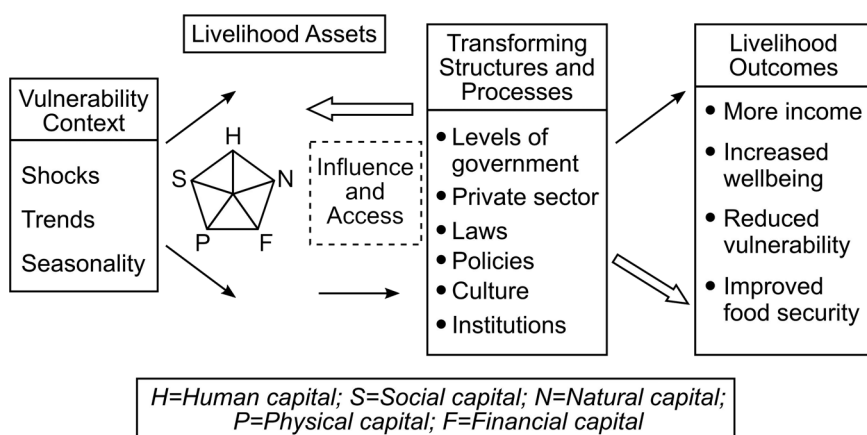
Figure 10.1 Sustainable Livelihood Framework adapted for the study

on the pursuit of a particular strategy, which in the case of cash transfers could take the form of investment in both farm and non-farm income generating activities, health, and human capital development. The Department of Social Welfare (DSW) and other informal mechanisms at the community level constitute institutions that profoundly affect cash transfers, livelihood strategies, and outcomes. For instance, the steady transfer of cash from the DSW can ensure ready availability of resources for investment in specific livelihood activities. Instead of focusing exclusively on conventional interventions, such as cash transfers, Scoones (1998) argues that the framework emphasizes getting the institutional and organizational environment right. The functional interrelationships that exist between the components of the framework suggest that within the SLF, cash transfers require the coordination and integration of the various actors and processes involved in order to increase the potential of such a strategy in reducing poverty.

Case description: LEAP policy prescription for extreme poverty reduction in Ghana

The sixth round of the Ghana Living Standard Survey revealed that 24.2 per cent of the total population remained poor as of 2014, while the extreme poor population constituted some 8.4 per cent (GSS, 2014). These figures show significant reduction from close to 40 per cent and a little over 18 per cent moderate and extreme poor population recorded by the Ghana Statistical Service at the beginning of this millennium, notwithstanding existence of spatial, gender, and occupational variation in the incidence and severity of poverty across the country. Poverty continues to be a rural phenomenon in Ghana with incidence and severity remaining high in the northern regions and higher among women than men. Reduction in poverty experienced over time is partly attributed to steady economic growth, political stability,

and livelihood support services of local and international NGOs operating in different parts of the country. More importantly, implementation of some social policy interventions by successive governments of Ghana including LEAP, the National Health Insurance Scheme, Free Compulsory Universal Basic Education, and the School Feeding Programme are often cited in cases of extreme and child poverty reduction.

Since September 2000, following ratification of the Millennium Declaration, there has been growing policy momentum around social protection issues in Ghana. This is motivated by concerns to reduce extreme poverty and livelihood vulnerability. In 2007, an NSPS was drafted. Consequently, a range of social protection programmes were rolled out with specific focus on citizens disadvantaged in terms of wealth, gender, age, and education (Nicola et al., 2009; Adjei et al., 2012). Key social protection programmes in Ghana have taken the forms of social assistance, social insurance schemes, and social welfare measures in response to extreme poverty and child protection problems such as child labour, child trafficking, and sexual abuse (Adjei et al., 2012). Social assistance interventions in Ghana include the School Feeding Programme, Education Capitation Grant, and the LEAP cash transfer intervention. Our interest in this case is to draw on experiences of LEAP beneficiaries in the sampled communities to ascertain the extent to which LEAP intervention works for the extreme poor by engendering sustainable livelihoods for their households.

The LEAP programme was initiated in 2008 to provide cash transfers to extremely vulnerable households, including those with orphans and vulnerable children. LEAP has become Ghana's flagship extreme poverty eradication and social protection programme implemented by the DSW at the Ministry of Gender, Children and Social Protection (MGCSP). This social protection policy intervention is designed to provide conditional cash payments to extreme poor households with orphans and vulnerable children, destitute elderly people, and persons with acute disability (Debrah, 2013; MGCSP, 2019). It constitutes the government's response to the call for social safety nets as a way of making growth and development more pro-poor. As of 2015, some 116,000 extremely poor households across the country were enrolled on LEAP intervention (MGCSP, 2019). This has recently increased to over 146,074 (Peprah et al., 2017). LEAP thus captures a unique segment of the extreme poor in Ghana, but excludes a large portion of other vulnerable households who also need support, particularly households with young children. Considering that early childhood is a key development window with long-term implications for health and well-being, the Government of Ghana in 2015 introduced an extension of the mainstream LEAP programme dubbed LEAP 1000. Using the mainstream LEAP implementation structure, LEAP 1000 targets poor and vulnerable households with pregnant woman and infants under 12 months of age. This extended version aims to reduce stunting by supporting children in the first 1,000 days of their life. Thus, households enrolled in LEAP 1000 are expected to receive cash support for three years.

LEAP is intended to enable extreme poor households to cater for their basic needs; prepare them to access existing social services including education and health; provide a 'springboard' to enable them to 'leap' out of extreme poverty and vulnerability traps; and ultimately empower them to contribute to socio-economic development in the country through their participation in productive livelihood activities. Hence, the programme is partly premised on the growing recognition that successful poverty reduction entails integration of both income and non-income measures rather than an exclusive focus on a single dimension of deprivation. With limited public budget for social transfers, it seems fair to allocate these transfers to those who need them most. In this regard, bi-monthly cash payments ranging between GHC 48 and GHC 90[1] together with health insurance, are provided to beneficiary households as a means of reducing short-term poverty and promoting long-term human capital development (Handa et al., 2013; Peprah et al., 2017). Funds for implementing LEAP are obtained from three main sources: Government of Ghana revenues (50 per cent), donations from DFID, and a loan facility from the World Bank (Handa et al., 2013). The LEAP has a complex, multi-layered targeting design involving indicators for district and community poverty, as well as human capital and service availability. There are five categories of beneficiaries identified as being among the most vulnerable, including pregnant and lactating women, impoverished elderly people, and people with severe disabilities.

Eligibility for LEAP is determined by poverty and having a household member who is orphaned and vulnerable, elderly poor – 65 years or above – or with an extreme form of disability (Handa et al., 2013; MGCSP, 2019). For orphaned and vulnerable children, the programme requires households to meet four criteria. Children within beneficiary households aged 5-15 years must attend basic public schools and attend public basic schools; children aged 0–5 years must regularly visit health centres for vaccinations and growth monitoring; birth registration of children; and non-involvement of such children in any form of child labour (Peprah et al., 2017; MGCSP, 2019). By making cash transfers contingent on school attendance and health-seeking behaviour, LEAP shifts attention from an approach based solely on mere income support to a more multidimensional approach including access to health and education as means of attacking extreme poverty. Moreover, it shows the synergies that exist between the programme and other sectors of the economy, particularly education and health.

Results and discussion from case study

Background of respondents

In all, 310 LEAP beneficiary households selected from 10 communities in four municipalities all in the Ashanti Region of Ghana were involved in this case study. Out of the total of 310 beneficiary households studied, 246 (79.4 per

cent) were female-headed, whereas only 64 (20.6 per cent) were male-headed. This shows that LEAP intervention targets women mostly, considering that the incidence and severity of poverty and livelihood vulnerability in Ghana, like other African countries, are relatively higher among women than men. Thus, LEAP focuses on women's empowerment for poverty and vulnerability reduction with over 60 per cent of beneficiaries being women. Most of the respondents from the beneficiary households chosen for this study had relatively lower levels of formal education (i.e. about 95 per cent with no or basic level of formal education as shown in Table 10.1), which partly explains their extreme poverty and vulnerability situations. Low levels of education limit their livelihood choices, with negative implications for their employability, well-being, and livelihood sustainability. Partly due to low levels of education, old age, ill health, and access to productive assets, the majority of the respondents (61.6 per cent) were found to be unemployed. Only 38.4 per cent of the respondents admitted being employed. Some of the respondents are employed in food-crop farming, petty trading, waste management, or security services. The results further show the relatively larger household sizes of most of the LEAP beneficiary respondents. About 70 per cent of the total beneficiary respondents had household size of six or more, whereas 30 per cent had household size below six. The larger household sizes of the respondents show that livelihood vulnerabilities and extreme poverty would have negative implications for the majority of dependants, particularly children. Table 10.1 shows details of the background of the LEAP beneficiaries who participated in the study.

Table 10.1 Demographic characteristics of beneficiary respondents

Variable	Category	Frequency	Percentage
Gender of household head	Male	64	20.6
	Female	246	79.4
	Total	*310*	*100*
Educational level	Basic	115	37.1
	Secondary	14	4.5
	Tertiary	2	0.6
	No formal education	179	57.7
	Total	*310*	*100*
Occupation	Employed	119	38.4
	Unemployed	191	61.6
	Total	*310*	*100*
Size of household	Below 6	93	*30*
	6+	217	70.0
	Total	*310*	*100*

Source: Field Survey, 2017

Causes and manifestation of extreme poverty

Often development practitioners and policymakers working on poverty reduction have sought answers to why some households remain extremely poor while others are well-to-do. In this case study, it was confirmed that the causes of extreme poverty among the inhabitants are multilayered and closely interlinked. Mostly inhabitants are trapped in extreme poverty due to their limited access to productive assets needed for their participation in sustainable livelihood activities. In the rural localities for example, limited access to land for agriculture, poor health, low level of education, and lack of requisite skills make people unemployable in either farm or non-farm activities. Thus, limited access to social support services and financial resources to meet basic needs or acquire productive assets are major causes of poverty as perceived by the respondents. About 99 per cent of the total respondents strongly disagreed that laziness is the cause of extreme poverty in the communities. Hence, there is no credence to the Social Darwinian theory of poverty in this case. The Social Darwinian theory explains the cause of poverty in terms of the behaviour and attitudes of the poor themselves (Islam, 2005), and argues that people are trapped in poverty partly because of laziness or poor attitude to work. It further explains poverty as a way of life imbibed by the poor and culminates in indifference, alienation, laziness, irresponsibility, and lack of self-discipline to work hard, plan, and save, which ultimately prevents the poor from taking advantage of opportunities that are available to them. Our findings show that factors that explain why inhabitants suffer higher incidence and severity of poverty are less attitudinal or behavioural and more situational. These situations include limited access to resources to engage in productive activities, poor health, low levels of education and skills, which adversely affect their livelihood options, and inadequate incomes to access basic needs and social services, which are also the outcome of limited livelihood options.

In this case study, extreme poverty was observed to be a visible condition with manifold manifestations. In Box 10.1, manifestations of extreme poverty in urban and rural localities reported by respondents have been presented. How the LEAP intervention promotes the eradication of extreme poverty and livelihood sustainability within the context of SLF is examined in the following sections.

Effects of LEAP on beneficiaries' livelihood sustainability and extreme poverty

About 93 per cent of beneficiary households (i.e. 288 households) sampled for the study had one member eligible for LEAP cash benefits; hence, they received GHC 48 every two months from the programme. Only 7 per cent of the households (i.e. 22 households) had two eligible members and were receiving GHC 60 every two months at the time of the study (refer to Table 10.2 and

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Box 10.1 Manifestations of extreme poverty among the sampled population

Urban localities

Homelessness/Streetism
Mostly involved in street hawking
Sometimes involved in highway beggary
Almost always wearing tattered clothes
Frequent drop-out of children from school
Lack reliable source of income
Often seek no proper medical care when sick
Buy food on credit in most cases
Lack regular access to balanced diet
Often hungry for food
Live in dilapidated housing units
Borrowing from neighbours in most cases
Often owe a lot of people and become isolated
Often in debt
Lack savings and health insurance
Physically challenged
Practise self-medication most often
Often at home due to lack of job
Unable to participate in community events such as church and funerals

Rural localities

Almost always wearing tattered clothes
Frequent drop-out of children from school
No access to farmland, or only to smaller pieces of land
Harvest very little produce during harvesting time
Seek no proper medical care when sick
Buy food on credit in most cases
Most often eat food without meat or fish
Live in dilapidated housing units
Borrowing from neighbours in most cases
Often owe lots of people in the community hence become isolated
Almost always working for other people on their farms to pay off debt
Have no storage bins
Physically challenged
Practise self-medication most often
Lack savings and health insurance
Unable to participate in community events such as church and funerals

Source: Field Survey, 2017

Figure 10.2). These amounts constitute an important financial asset-base for the beneficiary households to meet basic food and social service requirements such as education and/or health care for children, physically challenged, and elderly members. Experiences from most of the respondents showed that LEAP intervention has enhanced their financial assets. Consequently, for some respondents, improvement in their financial resources translates into improved well-being particularly in the areas of health care, children's schooling, and household food security. In this regard, LEAP contributes to the eradication of chronic manifestations of extreme poverty in their households. In one FGD, a LEAP beneficiary at Patriensa indicated:

> The LEAP grant has helped my household a lot. Before we were enrolled on the programme, this household monthly income was GHC40 because we solely depended on earnings from farm produce. However, due to LEAP, we get GHC60 every two months in addition … My grandchildren are always in school and I do not borrow to feed them again.

This notwithstanding, the majority of LEAP beneficiary respondents expressed their inability to acquire additional livelihood assets (physical, natural, and social) to improve their productive capacity and sustain their

livelihoods. As indicated in Figure 10.3, over 80 per cent of beneficiaries of LEAP cash transfers in the study area reported that they are less able to procure the requisite physical, social, and natural assets from the LEAP grant offer to secure their livelihoods without government support. Thus, the assets, activities, and general well-being for a significant number of the respondents have seen no change even after benefitting from the cash transfer intervention over time. Hence, this case study shows that effects of the LEAP intervention on beneficiaries' livelihood assets, activities, and outcomes in the context of the SLF have been minimal. The few beneficiaries who reported some positive changes in their livelihood assets through the cash transfer intervention described assets acquired as inadequate to engage in any meaningful economic activity that can wean them off the government's financial support.
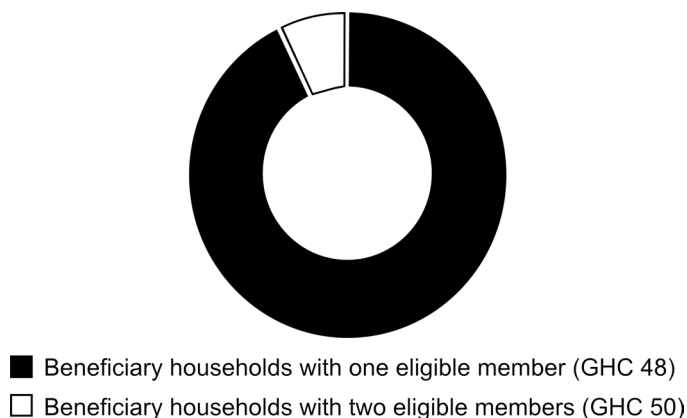
Three main reasons explain the minimal impact of LEAP on beneficiaries' livelihood assets enhancement opportunities. First, to a large extent, the LEAP cash transfer intervention is designed to provide support for extreme poor and vulnerable households, to improve their access to basic needs and consumption capacity for subsistence, rather than enhancing their productive capacity for self-sufficiency and livelihood sustainability. Hence, it fails to

Table 10.2 Cash transfers to LEAP beneficiaries, 2015

Intervention stream	Total number of beneficiary households nationwide, 2015	Bi-monthly cash transfer to households with defined number of eligible members (GHC)			
		1	2	3	4
LEAP (Mainstream)	116,000	48	60	72	90
LEAP 1000	6,220	64	76	88	106

£1 = 6.8418 Ghana cedis (GHC) (10 June 2019)
Source: MGCSP, 2016; Bruce, 2016; Peprah et al., 2017

■ Beneficiary households with one eligible member (GHC 48)
□ Beneficiary households with two eligible members (GHC 50)

Figure 10.2 Bi-monthly LEAP cash support received by respondents' households
Source: Field Survey, 2017

	Skills and training	Physical asset	Human asset	Social asset	Financial asset	Livelihood activities	Monthly productivity	Children's schooling	Health condition	General wellbeing
Improved	14.3	9.4	18	11.3	74	19.2	20.7	69.7	40.2	38.1
No change	85.7	90.6	82	88.7	25.2	78	76	30.3	55.3	55.9
Worsened	0	0	0	0	0.8	2.8	3.3	0	4.5	6

■ Improved □ No change ▨ Worsened

Percentage of responses
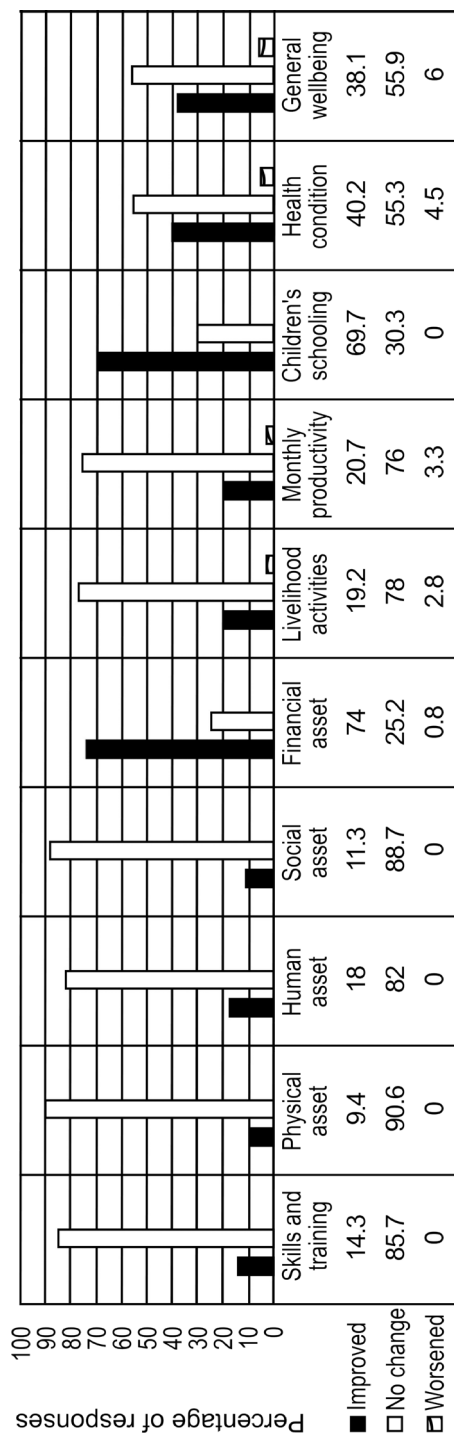
Figure 10.3 Effects of LEAP on livelihoods of beneficiary respondents' households
Source: Field Survey, 2017

empower beneficiaries to acquire the requisite assets to enable them engage in livelihood activities and improve their productive capacities for sustainable outcomes. Second, the relatively meagre amount transferred to LEAP beneficiaries makes it difficult for them to acquire assets to engage in any livelihood activity even if they had the intention of doing so. Third, the irregular flow and unpredictable payments schedules sometimes make the cash transfer programme unreliable. The majority of the respondents who asserted that the LEAP has not provided them with adequate livelihood assets for economic activity either complained of having larger household sizes or earning less than GHS 50 bi-monthly from the LEAP. Lamenting this during an FGD, a respondent from Kyeremfaso noted:

> I am a widow with five children who receive GHS 48 from the LEAP every two months. How can I cater for all my five children with such an amount? Sometimes I do not get a parcel of land to farm on because I cannot afford land with GHS48 (FGD participant, Kyeremfaso, 2016).

Conclusion

Global consensus on the need for comprehensive social protection policies is geared towards promoting asset acquisition to empower the extreme poor to reduce poverty and vulnerability (Peprah et al., 2017). Hence, for effective empowerment of the extreme poor to leap out of poverty and livelihood vulnerability traps, a combination of financial, social, human, natural, and physical assets is required to enable them to engage in economic activities on a sustainable basis for desirable livelihoods and well-being outcomes. Even though the LEAP cash transfer has the tendency to reduce the manifestations of extreme poverty and livelihood vulnerabilities, it fails to provide the necessary support structures to enhance beneficiaries' productive potentials. The LEAP therefore creates spaces for the poor to remain hugely dependent particularly on government cash handouts for survival. Without this support, their ability to maintain decent living and sustainable livelihoods is weakened. In this regard, complementary interventions that look beyond conditional cash transfers to include skills and technology transfers for empowerment against poverty are necessary.

Note

1. £1 = 6.8418 Ghana cedis (GHC) (10 June 2019).

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About the authors

Prince Osei-Wusu Adjei holds a PhD in Geography and Rural Development. He is currently a Senior Researcher at the Nordic Africa Institute, Uppsala, and a Senior Lecturer at the Department of Geography and Rural Development – KNUST, Ghana. His research interests include poverty, decentralized governance, gender, and livelihoods studies.

Richard Serbeh holds an MPhil in Development Studies from the University of Cambridge, and is currently a PhD Candidate at the Department of Geography and Rural Development – KNUST, Ghana. He is a fellow of the Rural Research and Advocacy Group. His research interests include poverty, decentralization, and livelihoods studies.

Joyce Osei Adjei holds an MPhil in Sustainable and Integrated Rural Development from the Kwame Nkrumah University of Science and Technology, Ghana. She is currently affiliated to the Ghana Research for Development Promotion Centre as an Assistant Researcher. Her research interests include rural poverty and livelihoods, gender, and development studies.

CHAPTER 11

Child-sensitive protection programmes on hunger and malnutrition in under-five children in Nigeria

Kemi Funlayo Akeju

Abstract

This chapter explores recent child-sensitive protection programmes in addressing the challenge of poor health, hunger, and malnutrition in children under the age of five living in extreme poverty in northern Nigeria. The Child Development Grant Programme (CDGP) and the Community-based Management of Acute Malnutrition (CMAM), implemented in northern Nigeria with the goal of reducing the severity of stunted, underweight, and wasted growth in children under five years of age, are explored. These programmes introduced different innovations with the aim of providing social protection for participating pregnant women and their babies in order to migrate them out of undernourishment and improve their resilience to diseases. Despite significant progress recorded, coverage of these programmes is still low; nonetheless, they offer valuable options for future programming, and differ significantly from the conventional conditional cash transfer protection approach as they have a direct impact on these children from pregnancy.

Keywords: child well-being, hunger, malnutrition, poor health, food insecurity

The growing importance of child-sensitive protection programmes

Social protection programmes emphasize the need to provide support to people facing various multidimensional forms of poverty, as well as a lack of basic needs for the attainment of an adequate living standard, through a set of contributory and non-contributory measures. Across the world today, issues of social protection centre on ways of improving well-being in groups within different age-structures. In developing countries, the use of social protection to ameliorate risk and vulnerabilities is important as a key policy option for addressing issues of poverty and the lack of basic needs among individuals in society.

Research by UNICEF (2014) identified that a large number of children in both developed and developing countries live in poverty; those in the poorest

quintiles in developing countries have a likelihood of death before reaching the age of five twice that of the wealthiest quintile. The largest proportion of children living in extreme poverty is in sub-Saharan Africa where children in the early stage of life are seen to be at greater risk of poverty compared with any other population age structure in terms of a monetary and non-monetary measure of poverty (UNICEF, 2016: 3), thus calling attention to, and within, the region. The rise of marginalized children and those in poverty is a global challenge, as children in developing countries face higher deprivation and greater lack of basic needs than their adults. UNICEF (GCECP, 2015) also affirmed that although progress has been recorded regarding the impact of many poverty alleviation programmes across the world, many children living in poverty are still left behind.

The growing need for child-sensitive social protection is born of the recognition of a child's right to survival. Children, especially those in early stages of life, often find it difficult to survive due to factors that are associated with birth defects, poor living conditions, environmental constraints, poor nutrition and hunger, and mother's poor health, among others. A UNICEF, WHO and World Bank report on levels and trends in child malnutrition stated that the key factors for delivering the world's children from all forms of malnutrition are:

> adequate maternal nutrition before, during pregnancy and lactation; optimal breastfeeding in the first two years of life; nutritious, diverse and safe foods in early childhood; and a healthy environment, including access to basic health, water, hygiene and sanitation services and opportunities for safe physical activity (UNICEF/WHO/World Bank, 2018: 2).

The African Child Policy Forum (ACPF, 2014) reported that child-sensitive social protection helps reduce inequality and inequity, offers long-term economic returns, and provides suitable interventions which have the potential to break the intergenerational transmission of poverty in children through to adulthood and create long-term economic benefits. Child-sensitive social protection is a system of programmes aiming at maximizing positive impacts on children as and when necessary, with the potential of minimizing harmful side effects or cost incentives. It comprises policies, schemes, and programmes that address specifically identified patterns of children's poverty and vulnerability. It also recognizes the long-term developmental benefits of investing in children's health, nutritional status, and living environment that will help move children towards fulfilling their life goals.

Making social protection more child-sensitive has the potential to benefit not only children but also their families, communities, and the nation at large as it responds to vulnerabilities associated with physical, dependency-related, or environmental disadvantage through built-in safeguards and schemes that directly reduce and counteract such vulnerabilities in children. A child-sensitive social protection programme design targeted at addressing child nutrition, health, and adequate caregiver resources at household and community levels can serve as an intervention delivery platform for poor

children through the provision of social safety nets, maternal mental health, and family planning services (Ruel et al., 2013).

Having improved opportunities and ensuring development outcomes for children in distinct early stages of life involves a multidimensional understanding of their well-being combined with a sensitivity towards the manner of their deprivation, and the risk factors embedded in child-sensitive protection (Kaplan and Jones, 2013). Roelen and Sabates-Wheeler (2011) also affirmed that social protection must respond to physical or biological vulnerability; issues of dependency vulnerability; and institutionalized vulnerability, and its form of marginalization; through appropriate policies and instruments to offset such vulnerabilities.

Holmes et al. (2012) emphasized that many of the programmes and policies of the 2004 social protection strategy in Nigeria have not been fully implemented, stating that social assistance programmes in Nigeria mainly use cash transfers, targeting education, health subsidies, and nutrition programmes. Age-specific social protection becomes a necessity with looming food insecurity, which is increasingly concentrated in conflict-affected regions where many households have a large number of children affected. Poor families with children become marginalized with the constraint of having little or nothing to feed their children; where the food is available, it is often low in nutrients and lacks variety.

Furthermore, conflicts induce violence, which causes the destruction of lives, and raises rates of displacement. Attacks by the Boko Haram insurgency, civil conflicts, and militias in the Niger Delta area and the Herdsmen crisis in the northern zones of the country have led to the destruction of many farmlands and properties, and rendered many people homeless and displaced. Children in internally displaced regions face psychological stress such as the loss of a sense of reasoning, shock, trauma, lack of affection, a cessation of schooling, and so on. This psychological stress is further compounded by looming hunger and malnutrition due to food shortages, as well as the high cost of available food, which results in stunted growth in children. Northern Nigeria is the most hit with Yobe, Borno, Jigawa, Katsina, Jigawa, and Kano states evidencing more stunted, underweight, and wasted children than those in the southern and eastern parts of Nigeria. Children left behind in some of these states are nearly twice as stunted, underweight, and wasted relative to national average figures (Save the Children Nigeria Report, 2015: 8).

Although many social protection schemes in Nigeria are based on a narrow concept of conditional cash transfer and health insurance schemes that have benefited children partly without explicitly targeting them, the inclusion and incorporation of children's direct needs in the design and evaluation of social protection programmes make a large difference, as reflected by the few child-focused protection policies in the country such as the Child Development Grant Programme (CDGP), and the Community-based Management of Acute Malnutrition (CMAM). The practice of child-sensitive social protection programmes is reflected in the CDGP funded by UK Department for International

Development (DFID) and the CMAM programme, which considers nutrition-sensitive interventions in Nigeria. The programme has been piloted in northern Nigeria where the number of severely poor children with stunted growth and poor living conditions is high. The region is also experiencing higher mortality and morbidity rates in children associated with teenage pregnancy and motherhood. The Nigeria Demographic and Health Survey 2013 (NDHS) (NPC and ICF International, 2014a, b) revealed that 36 per cent of girls aged 15–19 years have begun motherhood in the north-west zone of Nigeria. Katsina has the highest teenage pregnancy rate in the zone of 53 per cent, with most deliveries at home without adequate newborn care, postnatal care, and check-ups for the mother and newborn.

This chapter discusses the capability of child-sensitive protection programmes in tackling severe hunger and malnutrition in under-five children using lessons learned from the implementation of the Nigerian CDGP and CMAM in northern Nigeria. It considers the effectiveness, impact, and financial sustainability of the programme, and also identifies ways of improving progress made in its implementation and effectiveness.

Child poverty, malnutrition, hunger, immunization, and mortality in Nigeria

Child poverty and vulnerabilities in Nigeria: causes and effect

Children in Africa, and especially Nigeria, face many problems such as lack of access to quality health care and education, poor housing conditions, malnutrition, environmental challenges, impoverishment, and a denial of the basic right to life compared with children in other developing countries. These problems constitute the factors that result in them living in poverty, and strengthen the chances of them living within a vicious cycle of poverty as they grow to become poor adults with poor children. This is an indication that children in poverty have their origins in poor households with parents who are unable to give quality care to their children right from pregnancy.

The key starting point is the mother's maternal health, which plays a crucial role in the life of the newborn whose growth and development rest on the mother's living conditions, economic status, nutrition, psychological state of mind, and well-being. Barriers to maternal health include, but are not limited to, financial constraint/inability to pay for hospital treatment, low level of education (that affects their understanding of the value of health), inaccessibility of health units in rural areas, shortage of health workers in health units, failure to embrace/support family planning, and social and cultural barriers preventing male doctors attending to mothers.

Issues of high fertility in women, caused by social beliefs giving preference to male children and large families, religious beliefs, the need for replacement children, and poor gender relations have an effect on the well-being of children in households. There is also a distinct lack of concern regarding female

reproductive issues, and family planning coverage remains low for most women, while many adolescents are left out of basic sex education, leading to repeated unplanned pregnancies and uncared for children. Adolescent pregnancy poses a high risk for both mother and baby, and showcases the high tendency of premature birth, which raises complications in delivery followed by low birth weight.

Further complications arise from the deteriorating economic situation of Nigerians. As a result, the basic needs of living become difficult to meet as many workers are not paid or are unemployed. Failure of most state governments to pay salaries of workers has led to a reduction in the standard of living with those in informal sectors also feeling the pressure as the economic crisis has led to the lacklustre performance of business in the southern states (especially Ekiti, Ondo, Bayelsa, Osun, Edo, and Delta). Those in the northern region with limited social services in their communities are largely hit by issues of farmland and household destruction caused by incessant communal clashes, insurgencies, and sporadic attacks by Boko Haram and Fulani and herdsmen clashes.

The survival of homes and the family institution in Nigeria becomes distorted due to social upheaval and disharmony placing threats on homes. Many children are left to fend for the family at an early age while child marriage and child trafficking become rampant as they struggle to survive. Issues of children left behind during conflict, communal clashes, and tribal war have also increased as most children in displaced families who are orphans (having lost their parents in the crisis) spend their entire childhood in internally displaced homes with no certainty of having a good future in the presence of weak educational and social support networks. Others have joined the large group of poor children known as the *Almajiris* who roam the streets. Of importance is the issue of killing, destruction of farmlands, and loss of lives in the middle belt (Plateau and Benue states); this has resulted in an increasing number of households headed by women who have lost their husband, making some children family leaders at an early stage of life. With the presence of food insecurity in Nigeria, food prices are raised and households find it difficult to meet basic needs, resulting in problems of malnutrition and restricted access to nutritious and sufficient food, compounding the effects of poverty on many Nigerians.

Child malnutrition and hunger in Nigeria

Good nutrition is essential for children's survival, growth, and development; it enhances their learning and participation skills. Malnutrition deprives children of their futures as their lives are off-balanced (UNICEF/WHO/World Bank, 2018), while adequate nutrition helps improve children's performance (World Bank, 2017). The nutritional status of children under the age of five represents a measure of children's health across the world. From birth to age two, children need adequate nutrients for physical and mental development; inability

to obtain the required nutrients leads to poor health, which interferes with the child's optimal growth and development. A report from *Global Nutrition Report* (IFPRI, 2015) revealed that Nigeria is among the countries which have a minority of healthy children, indicating that most children are deprived of basic health by the government's inability to strengthen the health and social sector with adequate funds.

Causes of malnutrition among children under age five in Nigeria can be linked to inadequate food intake, unsanitary environment, and poor feeding habits by mothers during pregnancy and after birth. The initiation of breastfeeding for babies early in life is essential; however, the rate of early breastfeeding remains low in Nigeria and the Human Development Index 2015 records an estimated 17.4 per cent of children less than six months fed with exclusive breastfeeding in 2013. Undernourished children have lower resistance to infectious diseases and often die from the slightest infection of a childhood ailment.

Measurement of nutritional status in children under age five includes height-for-age, weight-for-height, and weight-for-age of the children. The occurrence of low height-for-age is referred to as stunting; low weight-for-height is wasting, and having low weight for a specific age is termed being underweight. The NDHS report (NPC and ICF International, 2014a, b) revealed that national prevalence of stunting, underweight, and wasting in children under five years stood at 37 per cent, 29 per cent, and 18 per cent, respectively. The survey also reported that stunting increased with age, is more severe in males than females, is higher in rural areas (43 per cent vs. 26 per cent for urban areas), and the north-west and north-east have the highest rates at 55 per cent and 42 per cent, respectively.

 The 2013 NDHS survey result (NPC and ICF International, 2014a, b) also indicated that although the national wasting rate was 18 per cent, it differs across different ages with age 9–11 months recording the highest rate at 27 per cent, while those up to 48–56 months had the lowest rate at 12 per cent. Across states, the wasting rates of the north-west (27 per cent) and north-east (20 per cent) are the highest, with the south-west remaining the lowest (10 per cent). In terms of being underweight, 32 per cent of children in rural areas are more likely to be underweight while 23 per cent of urban children exhibit signs of being underweight. Rates of underweight children remain much higher in the northern region than in the southern region; Kano and Kaduna had a record of 58 per cent underweight children, while Enugu and Edo state had 7 per cent and 8 per cent, respectively. The World Bank recorded that children under the age of five with a prevalence of severe stunting dropped from 36.4 per cent in 2013 to 32.95 per cent in 2014.

UNICEF (2015) reported that an estimated 2.5 million Nigerian children under the age of five suffer severe acute malnutrition (SAM) yearly, an extreme condition that leads to the death of up to 420,000 under-fives from common diseases, and deficiency of basic micronutrients which can be received from the intake of a good diet, food fortification, and supplements. Generally

micronutrient deficiency is a large contributor to the rise of mortality in infants and under-fives, and nutrition outcomes are influenced by poverty, the food system, water, agriculture, environmental factors, inequalities, shocks, and social protection.

Child immunization and vaccination coverage in Nigeria

Immunization is crucial for guarding against major childhood diseases such as whooping cough, diphtheria, polio, tetanus, tuberculosis, and measles. Basic immunization programmes in Nigeria cover routine immunization using the following vaccines: Bacillus Calmette-Guerin vaccine early at birth; diphtheria and tetanus toxoid with pertussis vaccine (DPT1/Penta1, DPT2/Penta2, DPT3/Penta3) at ages 6, 10, and 14 weeks; oral polio vaccine at birth, 6, 10, and 14 weeks; hepatitis B vaccine at birth, 6, and 14 weeks; yellow fever vaccine at 9 months; measles vaccine at 9 months; and vitamin A vaccine at 9 and 15 months.

Despite the recognition of immunization and vaccination as the most successful and cost-effective public health saving intervention strategy, maximizing its full benefit remains a challenge in Nigeria. Recently, the National Immunization Coverage Survey (NBS and UNICEF, 2017), conducted in August 2016 – January 2017 by the National Bureau of Statistics, revealed that only 23 per cent of children aged 12–23 months received complete doses of the prescribed vaccinations, 40 per cent did not receive any, while the rest, 37 per cent, received partial vaccination doses. Only 33 per cent of children aged 12 to 23 months received the three doses of DPT vaccine, while 31 per cent of those that received DPT1 vaccines failed to complete the DPT series. This result indicates that Nigeria lags behind the global rate of 85–90 per cent coverage and needs to speed up action towards protecting the lives of infants who often die from the slightest common ailment in the country. Across regions, the north-east had only 8 per cent completion while the south-west had up to 50 per cent. Remarkable progress was made on polio eradication programmes leading to the removal of Nigeria from the list of polio-endemic countries.

Efforts to improve commitment to the implementation of immunization and vaccination programmes in Nigeria include a joint resource mobilization of government, private donors, UNICEF, and other health agencies in securing medium and long-term funding. Lack of awareness, women's low level of education, lack of faith in immunization vaccines, the proximity of health centres, and religious-based constraint stand as common factors militating against immunization coverage in the northern region.

Trend and pattern of mortality in Nigeria

Mortality in children focuses on death of a child before reaching a month, a year, and the age of five. UNICEF (2013) observed that child and maternal mortality are triggered by many factors, such as poorly funded and culturally

inappropriate health and nutrition services, food insecurity, inaccurate feeding practices, and lack of hygiene. Progress towards ending infant mortality and preventable childhood death remains slow, with very high numbers of births not attended by a skilled medical professional. Millions of children die from diseases that can be prevented through vaccines while neonatal sepsis (newborn death) can be attributed to infections related to the delivery process.

Child deaths in Africa are attributed to preventable causes such as acute respiratory infections, diarrhoea, malaria, measles, malnutrition, and neonatal conditions, which include suffocation, prematurity, and low birth, occurring singly or in combination. Most child deaths in Nigeria are the result of these simple, preventable, and curable health conditions. Malaria alone accounts for about 24 per cent of child deaths annually in the country. Mortality in infant and under-five year olds is closely related to key socio-economic, religious, and geographic characteristics with their rates decreasing as household income, mother's education level, and labour participation level increase. Nigeria is struggling to sustainably provide safe water and adequate sanitation. High population growth and urbanization raise water demand; with supply remaining unchanged and even decreasing due to climatic conditions, ensuring environmental sanitation, human health, food security, and disaster resilience becomes difficult.

Poor and fragmented health service delivery in Nigeria constitutes the bottleneck affecting the achievement of the Millennium Development Goals 2015 targets. The quality of health delivery is poor in the public health centres, particularly those in rural areas. Most health centres are not appropriately funded and lack facilities and equipment essential for health service delivery that serves the populace in the area. However, it should be recognized that although improvements in health have not led to the sustainable resolution of the population's health problems, the efforts made over the last decade have improved health indicators. As seen in Table 11.1, neonatal deaths dropped from 51 out of 1,000 live births in 1995 to 43 in 2005, and 34 in 2015. The number of children dying in their first year (infant mortality) dropped from 123 children out of 1,000 live births in 1995 to 97 in 2005, and 69 in 2015. Progress was also

Table 11.1 Mortality rates in Nigeria (1995–2015)

Years	Neonatal mortality/ 1,000 live births	Infant mortality/ 1,000 live births	Child mortality/ 1,000 live births	Maternal mortality/ 100,000 live births
1995	51.4	123.4	207.8	1,250
2000	48.3	112.0	186.8	1,170
2005	42.7	96.6	158.1	946
2010	38.2	81.5	130.3	867
2015	34.3	69.4	108.8	814
2017	32.9	64.6	100.2	–

Source: Author's compilation from World Bank Database.

recorded for the under-fives with a drop in child mortality from 208 in 1995 to 158 in 2005 and 109 in 2015. An observed trend is that a large proportion of children that did survive the threat of mortality at both neonatal and infant stages succumbed to under-five mortality as seen in Table 11.1.

Methodology

Findings in this chapter are based on a mixed method approach involving discussion of issues of child poverty and malnutrition with a randomized evaluation of child-sensitive protection programmes in tackling hunger and malnutrition. The chapter presents in-depth contextual literature on child poverty, malnutrition, and hunger from UNICEF, the World Bank, and other health organization reports. It also discusses findings from the midline report by the e-Pact consortium on the impact evaluation of the CDGP and CMAM programme implemented in the northern region of Nigeria in terms of the physical and cognitive development of children in the early stage of life.

Overview of the child-sensitive protection programmes in Nigeria

In Nigeria, many intervention programmes on child health and development such as the Expanded Programme on Immunization, National Emergency Action Plan, Integrated Community Case Management of Childhood Illnesses in Nigeria, and the Integrated Maternal Newborn and Child Health Strategy have shown to be the most cost-effective ways of preventing many under-five deaths. Recently, international development agencies and UNICEF focused attention on reducing the number of stunted and underweight children suffering from malnutrition through the use of child-sensitive protection policies such as the CDGP and CMAM. These protection programmes provided a basic income, nutritional supplements, and guidance on the benefit of health care practices to pregnant women and their children, towards improving the lives of mother and child and alleviating child and maternal mortality.

The Child Development Grant Programme

The CDGP is a six-year (2013–2019) pilot programme of DFID in partnership with Save the Children and Action Against Hunger in Zamfara and Jigawa states of Nigeria. Under-nutrition is most severe in northern Nigeria where a third of children under five are underweight, half are stunted, and a fifth wasted. Malnutrition has complex, interrelated causes related to food security, caring practices, health services, and healthy environments. Having identified the severity of hunger, undernourishment, and poor living standards of people in Nigeria, this programme was set up to improve the nutritional intake and capability of the poorest children in the worst affected regions. CDGP is on track to achieve its planned output and outcome results. Its programme is designed with an independent evaluation and research component to

generate evidence of the impact of the programme on household food secu-rity, vulnerability, and child nutrition.

Target/Beneficiaries
With the aim of reducing stunted growth in children under the age of five, the scheme targeted babies and pregnant women in Jigawa and Zamfara states. It provided an initial cash supplement of N3,500 (US$10) which was increased in 2017 to N4,000 ($12) monthly to pregnant women and mothers with babies, towards complementing household expenditure on food and nutritional sup-ports for households within the coverage of the programme. It also aimed to educate women of reproductive age on the benefit of good nutrition and health through a behaviour change campaign unit involving counselling and training on breastfeeding, mother's hygiene, and infant and mother's dietary supplement needs.

Strategies adopted
With the aim of reducing financial barriers to quality nutritional intake in under-five children and reducing child mortality, the CDGP used two basic programme interventions: 1) the monthly cash transfer; and 2) the behaviour and counselling change campaign programme. CDGP strategically identified communities selected for the treatment (CDGP intervention villages), and others used as the control variable (non-CDGP intervention villages), and observed changes in the two groups being brought about by the intervention programme which involves the cash support and the behaviour change cam-paign programmes. A registration exercise involving the recording of demo-graphic and socio-economic data of CDGP recipients was undertaken. The behaviour change campaign used various communication methods such as media agencies, billboards, text messaging, posters, health talks, and creation of counselling units to disseminate important information on health and nutrition to the audience. The programme focuses on the first 1,000 days of the life of a newborn and strategically follows up its progress using a baseline and midline evaluation of its track record periodically.

Achievement
In CDGP intervention communities, awareness of the programme is high with a high level of participation from pregnant women who largely spent the cash support on food and child expenses. At start-up of the programme, five local governments were covered in the two states – Zamfara state (Anka and Tashe) and Jigawa state (Buji, Gagarawa, and Kiri Kasama) – capturing the extremely vulnerable populations. Enrolment rate of pregnant women was high, thus allowing the programme to meet its target of the first 1,000 days for newborns. The programme report indicated that the programme played a positive role in the development of young children and their mothers in the support communities, as the woman largely determines the spending pattern of the cash support.

The response of people to the collection of dietary supplements, attendance for check-up visits, and counselling improved over time, while more than 100,000 pregnant women have benefited from the cash support programme towards meeting the dietary needs of their children, thus improving food security for beneficiary households. The behaviour change campaign also educates and influences families' decisions on child health care practices, perception on fertility issues, and attitudes, resulting in improved maternal and childcare practices, which ultimately improve health and nutrition of women and children. After the start of the programme, the number of women who spaced their next birth increased as a result of the counselling and family planning support received from CDGP.

Lessons from CDGP

1. Nutritional well-being of children in the first 1,000 days of life is essential for improving the state of health of children, combating child mortality, and improving resilience to diseases, provided interventions commence from pregnancy. This can be captured through the provision of support for mothers at an early stage of pregnancy.
2. Cash transfer targeted at women of reproductive age has the potential to provide additional nutritional value to women and children.
3. Counselling and training programmes for women of reproductive age influence and improve knowledge, attitudes, and practices on child spacing, breastfeeding, and family planning among the targeted women, which improve nutrition and general maternal and childcare practices.
4. The cash transfer results in improved material well-being, and contributes to the relational well-being of households through enhanced trust and reciprocal social and economic collaboration. It also enhanced government capacities for managing cash transfer in the target states.
5. Improving access to maternal and child health services in rural northern Nigeria requires a strategy that addresses all household and community barriers simultaneously, and this can be done through allowing religious and community leaders to disseminate information on maternal and child health across a large population, and persuade communities to change established behaviour and attitudes.

Community-based Management of Acute Malnutrition programme

UNICEF identified that up to 1 million children under the age of five are affected by SAM leading to up to 100,000 deaths yearly. The CMAM programme implemented by UNICEF in collaboration with the Nigerian Government is committed to treating children suffering from SAM through an innovative and cost-effective way in many developing countries. The programme, which is funded by the Children's Investment Fund Foundations (CIFF), has recorded great improvement over time, and CIFF is

committed to strengthening its performance by securing the financial commitment to the programme from the Nigerian Government. It also intends to facilitate the mainstreaming of the programme as a routine intervention implemented by the public health and nutrition services of Nigeria at state and federal level.

Target/Beneficiaries

In Nigeria, CMAM is supported by CIFF with a focus on 11 high burden states in northern Nigeria: Adamawa, Bauchi, Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe, and Zamfara.

Strategies adopted

Interventions on the treatment of SAM, which had been in existence in Nigeria, were upgraded towards uninterrupted and sufficient funding through a five-year programme framework from 2013 to 2018 divided into two phases: 2013 to 2015, and 2015 to 2018. Implementation of the first phase programme covers 498 facilities distributed across 77 local governments in the 11 burdened states of northern Nigeria. The intervention programme commenced activities with the screening of children for signs of SAM, and referred identified groups to a clinic for evaluation where children diagnosed as SAM proceed to stabilization centres/units for intensive treatment. Diagnosed SAM children, with emphasis on severity or complications, collect a weekly supply of dietary support known as ready-to-use therapeutic food (RUTF, a food complement comprising soy milk and wheat) which has been sourced locally to reduce cost. RUTF is also given to those in the stabilization centres after being treated while all outpatients of CMAM are encouraged to visit the clinic regularly for weekly check-ups and collection of additional supply of RUTF. A child having satisfactorily passed the weight gain, exceeding a predetermined upper arm circumference threshold, is declared free/cured of SAM.

Achievement

CMAM has been making progress in Nigeria: UNICEF reported that it contributed to the government initiative of Saving One Million Lives and has helped treat 90 per cent of children with SAM. Between January 2013 and November 2015, 928,473 children were admitted into treatment in 11 states, saving 76,000 lives in 2015. Routine screening during the immunization campaigns programme allows early detection and identification of SAM cases for treatment and referrals. Provision of nutritious food (i.e. RUTF) to children aged 6–59 months, and pregnant and lactating mothers helps in the prevention of acute malnutrition. The CMAM role has been supportive and encouraging regarding the prevention of acute malnutrition in both children and lactating mothers through early detection, and its fast referral of cases to health facilitators.

Lesson Learned

To optimize the functionality of nutritional child-sensitive protection programmes, early detection of malnutrition in children is important to enable timely treatment and referral of cases. There is a need to evaluate programme

performance regularly to detect defaulters and enhance their monitoring. There is also a need to raise awareness of the importance of micronutrient intervention programmes to enable good levels of participation of the recipients. Programme achievements should be tracked through routine screening and surveillance to check the response to treatment among beneficiaries. Continuous activities of advocacy groups by UNICEF and CIFF have resulted in government procurement of RUTF in some states, although there is no certainty of government continuing in its interventions.

Challenges of CDGP and CMAM

A major challenge for health and developmental programmes in Nigeria is inadequate funding for continuation and expansion of projects. Funding for nutritional dietary supplements is often provided very late, mostly during emergencies, thereby impeding appropriate planning and implementation processes. Government efforts to improve the performance of CMAM have not been consistent, and this has generated low coverage of the programme. There are concerns about high default rates in some states, unreliable supply chains and logistics, and lack of governmental support. Significant constraints exist with the rise of insecurity in the northern region and the incessant challenges to food security caused by disruption, killings, and destruction of farmlands.

Conclusion

Evidence from the CDGP and CMAM initiative indicates that the child-sensitive protection programmes had a positive impact on the development and growth of children involved, and also shows that early interventions with mothers and children help in preventing irreversible impairment and harm. Communication has an important role in scaling up information and sensitization of mothers in childcare practices, counselling on antenatal programmes, and the need to deliver children at health centres.

The evaluation report of the CDGP indicates that the programme has largely benefitted pregnant women and their children at an early stage in their lives through its nutrition promotion and behaviour change strategies. The programme encouraged improved practices on the usage of antenatal services, exclusive breastfeeding among mothers, improved dietary intake in children, and increased the rate of vaccination for children. Phones were given to participants of the programme at registration point to enable them to receive information, counselling support, and news on availability of their monthly cash transfer, antenatal care, and home basic hygiene. It was also observed that the decision on the spending pattern of the monthly cash transfer received was largely taken by the participating women who spent it mostly on buying food for the household and children.

Treatment of children with SAM through the CMAM programme in the 11 targeted northern states yielded a positive response. SAM increases a child's susceptibility to complications (such as malaria, diarrhoea, and cholera) that

compromise the child's health, with long-term effects on a child's physical and mental development. The growing body of evidence for CMAM is encouraging as it points towards the achievement of significant mortality reductions in a cost-effective manner. Beneficiaries were made to register for antenatal care, encouraged to give birth with the assistance of a skilled birth attendant, and seek post-natal care within two days of childbirth. RUTF was procured and distributed to beneficiaries at appropriate times while the default rate was reduced through the use of advocacy groups who informed the participants of the benefits of the schemes.

Despite the huge success of both CDGP and CMAM, a large population of children in the participating communities remains malnourished. The incidence of diarrhoea, stunted growth, and poor health in children is alarming. Limited coverage, a low financial contribution from government, and over-dependence on support and funds from development partners pose challenges to improving the state of child health in the country. Generally, there is a need for the programmes to be incorporated into a national programme to capture the large population of children in extremely poor households in Nigeria, and incorporate children from all other regions who are also in the same predicament.

It is clear that the level of resources allocated to childcare is not sufficient to respond adequately to the income security needs of children and families, even when taking into account that these needs are also addressed through other means, including public health, education, and care services. Underinvestment in the social protection needs of children is particularly critical in African countries. The fight against acute and chronic malnutrition, poverty in children, and state of maternal health in Nigeria, remains unacceptable when compared with the population age structure of children in need.

Towards meeting Goals 2 and 3 of the Sustainable Development Goals, there is a need to incorporate nutrition targets into core developmental and social programmes in Nigeria to provide micronutrient and dietary supports for under-five children. It becomes imperative for the government to anchor child protection programmes in legislation in order to establish a clear definition of eligibility criteria and benefits, with a more stable basis for the implementation of these programmes, especially with regard to financial sustainability and institutional capacities towards ensuring no child is left behind in the development goal. It is essential for the government to properly disseminate programmes anchoring child development and protection to the people through adequate sensitization programmes.

Recommendations

Child poverty is an urgent issue to be effectively tackled for sustainable development to be achieved in Nigeria. The question of how poverty in children can best be addressed requires a critical focal point on how they become poor; that

is, through birth, poor childcare practices, low nutritional dietary intake, state of the household economy, and environmental challenges. Thus, meeting their basic needs and deprivations requires an early response starting from pregnancy, immediately after birth, and during the early years. Based on activities of the child-sensitive protection programmes, which are cash transfer, nutrition-based and counselling/sensitization activities, the following recommendations are proposed towards reducing the severity of child poverty and enhancing the development of a targeted sensitive protection policy in the country:

1. The importance of a child-sensitive protection policy must be well-disseminated using the various communication media to ensure the support of targeted groups in society. CDGP and CMAM intervention programmes should be strengthened through evidence and lessons learned, and extended to other parts of Nigeria to enhance large coverage. Proper monitoring of targeted beneficiaries of child-sensitive social protection policies must be done to avoid a high rate of default.
2. The design of the child-sensitive protection policy and its implementation must encourage community participation by incorporating community leaders, and social and solidarity groups towards achieving larger coverage and support. Broad-based social protection policies to mitigate and counteract all the sources of vulnerability in children must be aligned to family policy on education, housing, food security, and health. A nutrition-based child-sensitive protection programme should use locally sourced food supplements to enhance cost-effective dietary support.
3. Budgetary allocation to child-sensitive social protection programmes must be raised, and new measures of targeting new recipients in poverty must be addressed. Uncoordinated institutional policy on health issues must also be addressed by the government through raising commitment to address all forms of malnutrition in under-five children. States are primarily responsible for the protection of children; they need to establish and implement child protection systems in accordance with their culture and way of life towards increasing behavioural response to child-sensitive protection policies.

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About the author

Kemi Funlayo Akeju holds a PhD in Economics from Ekiti State University, Nigeria, where she is currently lecturing. Her teaching and research focus on issues of economic development of underdeveloped nations, which covers: poverty, health, gender inequality, and demographic issues. Her articles have appeared in local and international journals.

CHAPTER 12

Can cash transfers transform child well-being in fragile contexts? Evidence from Liberia's Bomi cash transfer pilot

Christopher Ngwerume and Pius T. Tanga

Abstract

The chapter focuses on the transformative potential of social cash transfers on child well-being in fragile contexts, through a case study of the first pilot cash transfer scheme implemented in Bomi County of Liberia. Using a quasi-experimental, mixed method, cross-sectional research design, the research explores the impact of cash transfers on a range of child well-being indicators during the periods 2011 and 2015. The results show that despite limited unintended impacts, to a great extent, cash transfers positively transformed child well-being, particularly child health, food consumption, education, housing, and assets. We find that cash transfers mitigated institutionalized gender-based disadvantage and created safe and protective environments for children, but also had unintended negative impacts – particularly increasing child labour. We conclude that the fragile state implementation, in itself, does not impose significant limitations on the transformative potential of cash transfers, but additional cash transfer design specifics are required in fragile state contexts to enhance the impact of cash transfers on child well-being.

Introduction

The potential of social protection to address child vulnerability in fragile contexts is subject to heated debate. Central to this debate is the question of feasibility. Fragile contexts, as defined by Torres and Anderson (2004: 2), are those regions where the state is incapable or reluctant to harness domestic and international resources effectively for poverty alleviation.

Bilateral donors have argued that, 'States are fragile when state structures lack political will and/or capacity to provide the basic functions needed for poverty reduction, development and to safeguard the security and human rights of their populations' (OECD, 2007). In short, fragile states lack authority,

capacity, and legitimacy to deliver on their primary mandates. Grävingholt et al. (2012) highlight the multidimensional character of state fragility, in which some lose their authority by failing to provide appropriate levels of basic services, such as education, health care, or water supply and sanitation, while others lose their legitimacy by failing to extend their reach over all parts of their territory. This implies that due to these manifestations of state failure, generalized poverty, vulnerability, and exclusion become key attributes in fragile contexts. This also triggers important questions with regard to the feasibility of cash transfers (CTs), particularly targeting in a context of generalized poverty, and the prospect of realizing impact in a context of limited availability of basic services.

Evidence suggests that child vulnerability increases in fragile contexts. Consultations conducted in 21 high-risk countries highlighted that in fragile contexts, children suffer from multiple forms of deprivation that include lack of access to education, violence, exposure to harmful traditional practices, exploitation and abuse, insecurity, and exclusion (Ridsdel and McCormick, 2013). Girls in particular become more vulnerable to sexual exploitation and abuse, including rape and forced marriages. This is confirmed by the research conducted by World Vision in five fragile states, which suggested the existence of amplified child protection risks in such settings, including high risk of early and forced marriage, sexual abuse, and child labour (World Vision, (2012). It is therefore clear that the drivers of child vulnerability in fragile contexts are quite complex and go beyond extreme poverty, to include social and cultural factors. This defies the common presumption that material deprivation is the main driver of vulnerability in fragile contexts.

While social protection has been seen to be effective in addressing socio-economic vulnerabilities in many developing countries, little is known of its effectiveness in fragile contexts. Lack of authority, capacity, and legitimacy to deliver on their primary mandates, are major factors that complicate implementation of social protection programmes in fragile contexts. Darcy (2004: 18) notes that, in fragile contexts, 'social protection approaches have to reckon with the often extreme damage done to the social fabric … and with the sometimes extreme manifestations of social exclusion that characterize them'. The effectiveness of targeted social cash transfers, in a context of generalized poverty, poor supply of social services, and weak institutions, is brought into question. Using the transformative social protection model, this chapter will review challenges of social protection in fragile contexts, and explore the transformative potential of CTs based on a case study of the Bomi County Social Cash Transfer Pilot Scheme. The chapter begins by providing a country context, followed by the theoretical and methodological approach, and then presents the analysis for the Bomi County pilot cash transfer scheme, before we conclude by articulating key recommendations for strengthening the transformative impact of CTs on child well-being in fragile contexts.

Research context

This section provides a brief socio-economic background of Liberia and a brief description of the Bomi Social Cash Transfer Pilot Project. Liberia is a country on the West African coast measuring an area of 1,932 km^2, bordered by Sierra Leone to its north-west, Guinea to its north, Côte d'Ivoire to its east, and the Atlantic Ocean to its south-south-west. In 2008, Liberia had a population of 3,489,072 with an annual population growth rate of 2.1 per cent (LISGIS, 2007: 3). The country is sub-divided into 15 administrative counties. Bomi is one of the counties located in the north-western part of the country. In 2008, Bomi County had a population of 82,036 in four districts, namely Dewoin, Klay, Mecca, and Senjeh, and its capital is Tubmanburg City.

Liberia has endured two, relatively recent, cycles of civil wars: the first during the period 1989 to 1996, and the second between 1999 and 2003. The second civil war was more destructive and brutal, particularly for civilians. According to Boulton (2017), atrocities were committed by all sides, particularly sexual violence against women, and recruitment and use of children in military operations. The civil war left a trail of destruction and a collapsed economy. The Liberian Truth and Reconciliation Commission (Republic of Liberia Truth and Reconciliation Commission, 2009) estimated that 250,000 people were killed by the conflicts, and 1 million were displaced.

The civil war also reversed the country's human development agenda. According to the country's Ministry of Health and Social Welfare in its country situational analysis report, in 2010, Liberia ranked 162nd out of the 169 countries included in the UNDP Human Development Report (MHSW, 2011). Average life expectancy was 59 years, the adult literacy rate was 58 per cent, and the combined gross school enrolment was as low as 57 per cent. As Schubert (2008: 6) noted, 'the economy collapsed, impoverishing much of the Liberian population', as reflected in the country's social indicators which were among the worst in the world. The years 2003 to 2011 therefore mainly focused on recovery and reconstruction. The country's first Poverty Reduction Strategy, 'Lift Liberia' (PRS I) covering the period 2008–2011, focused on rebuilding infrastructure; reviving the traditional engines of growth in mining, minerals, forestry, and agriculture; and establishing a competitive environment to help diversify the economy over the medium term (MPEA, 2011b). The country's Medium Term Development Strategy 2010–2017 entitled an 'Agenda for Transformation' provided the roadmap for Liberia's transition to the next stage – from recovery to inclusive growth and wealth creation, building towards the long-term national vision 'Liberia Rising 2030' (MPEA, 2011a).

By 2013, Liberia had successfully crossed the 10-year milestone within which post-conflict countries risk relapsing into violent conflict. However, despite the sustained peace, and gradual economic recovery, persistent poverty and inequality remained major eyesores in the transition. According to the Core Welfare Indicator Questionnaire Survey (CWIQ), in 2008, 64 per

cent of the 3.5 million people fell under the national poverty line and 48 per cent fell under the extreme poverty line. As noted by Schubert (2010: 8), this meant that 2.2 million people living in 400,000 households were absolutely poor of which 0.5 million living in 100,000 households were moderately poor, while 1.7 million living in 300,000 households were extremely poor. The situational analysis conducted in 2010 also revealed that of the 300,000 extremely poor households, approximately 50,000 households (8 per cent of all households) were at the same time labour constrained (Schubert, 2010: 10). This group consisted of households with no adult members that were fit for productive work due to old age, disability, or illness. Such households were not able to access labour-based interventions, which were the mainstay of the second Poverty Reduction Strategy, 'Agenda for Transformation'.

In 2009, the Government of Liberia launched the pilot Social Cash Transfer Scheme targeting the extremely poor and labour constrained households. The goal was to test the feasibility of CTs and their effectiveness in lifting these households over the extreme poverty line and to empower them to meet their basic needs (Schubert, 2010: 3). The pilot phase of the social cash transfer scheme was implemented in Bomi County situated in the north-western part of Liberia. Bomi County was selected on the basis of a variety of socio-economic and nutritional data extrapolated from the Comprehensive Food Security and Nutrition Survey of 2006, which ranked Bomi as the most deprived and food-insecure county. The scheme utilized a census and proxy means test targeting methodology to select about 2,000 households to benefit from regular and predictable CTs. The transfer size was averaged at $25 per household although the actual payment amount depended on the size of the household. The social cash transfer scheme went through two external evaluations, a mid-term evaluation in 2011, and a final evaluation in 2015. Quantitative results of the two external evaluations were utilized in the study, which underpins this chapter.

Research methodology

This research adopted a mixed method research design. Quantitatively, the research compared the data on status of children in the households receiving cash (intervention group) with that of children from households with matching characteristics but not receiving cash (control group). The quantitative data was derived from data sets of the project's mid-term and end-term evaluations conducted in 2011 and 2015, respectively. Qualitatively, the research utilized purposive sampling to select children aged 10–17 years (n = 32) to participate in focus group discussions (FGDs). In addition, the research purposively selected policymakers (n = 4), service providers (n = 10), staff of the Social Cash Transfer Secretariat (n = 10), and local leaders at county and district levels (n = 10) to participate in in-depth interviews.

Conceptual framework

The study was underpinned by two conceptual frameworks: the transformative framework and the child-sensitive framework. The transformative framework postulates that social protection should facilitate social transformation, by challenging the patterns of inequality that keep poor people poor (UNICEF, 2008). The framework focuses beyond economic vulnerabilities and addresses power differences in societies, which fuel deprivations and sustain inequalities. For instance, many of the difficulties involved in the provision of social protection for women relate to socio-cultural values that leave women in vulnerable positions. Transformative social protection instruments would seek to empower women through transforming and balancing power relations between men and women. While the child-sensitive framework shares most of the aspects propounded by the transformative framework, it places a particular focus on vulnerable children. It 'focuses specifically on addressing the patterns of child poverty and vulnerability and recognizing the long-term developmental benefits of investing in children' (Yates et al., 2010: 210). The framework, thus, advocates for a rights and equity-based approach that prioritizes the most vulnerable children.

Evidence of the transformative potential of cash transfers

This section reviews evidence on effectiveness of CTs in transforming child well-being in fragile contexts, focusing on research results from Bomi County. Implementation of social protection programmes in fragile states is complicated by several factors. Harvey (2009) notes that implementation is often short term and unpredictable, and financing is often fragmented. Another challenge emanates from limited capacity for design and implementation of social protection projects. This situation resonates with that of Liberia in that social cash transfer schemes are essentially donor-driven small pilots and emergency response interventions, which are not government driven and owned. The limited reach of the small cash transfer pilot schemes is also a challenge in that they tend to narrow their targeting criteria in order to select the poorest and most marginalized households. This often creates ethical dilemmas of picking and choosing the poorest of the poor in a context of generalized poverty and deprivation. This begs the question of appropriateness of means tested CTs in fragile contexts. On the positive side, it can be argued that such short-term pilot schemes present opportunities to develop projects that graduate from short-term, emergency interventions into longer-term social protection programmes.

The impact of CTs on child well-being in fragile contexts is grossly under-researched. This is partly because CTs in fragile contexts are mainly designed to deal with life-saving, short-term, purely humanitarian, and survival needs related to food insecurity, malnutrition, and other forms of material deprivation. Thompson (2014) contends that the potential of CTs in fragile contexts has been unnecessarily restricted to increasing the buying

power of disaster-affected individuals to empower them to meet their minimum requirements for food and non-food items, or to assist in the recovery of people's livelihoods. This restrictive view of the potential of CTs in addressing poverty and vulnerability has in turn limited research into impact on other sectors such as child protection. Harvey (2009: 190), on the other hand, postulates that assessments of CT ventures have also suggested that money can be more cost efficient than in-kind support, can generate positive multiplier effects in local economies, and can provide people with better choice, which can generate opportunities for spending on key basic needs and social services such as health and education services.

A key question to ask is: what has been the impact of CTs on child protection in fragile contexts? Thompson (2014) explores the evidence base for CTs into households clearly intended to accomplish child protection outcomes covering three broad categories: exploited children, family separation and alternative care, and mental health and psychosocial support. Child exploitation is an expansive term that entails forced or precarious labour, child trafficking, and child prostitution (Thompson, 2014: 362). Growing incidence of transactional sex in fragile sites can be ascribed, in part, to economic shock, but also may result from family members seeking to protect their child's honour or to conform to certain cultural values (Thompson, 2014: 362). In practice, it is clear that the drivers of child sexual exploitation are not purely economic, and this contributes to the mixed proof regarding the potential impact of utilizing CTs to decrease transactional sex and sexual exploitation. In the Democratic Republic of Congo, girls indicated that the amounts of money provided as part of a programme of income-generating activities for survivors of sexual exploitation were not substantial enough to discourage them from participating in more lucrative sex work. Qualitative research evidence from the Bomi social cash transfer pilot scheme, however, seems to refute this argument. Participants in FGDs and in-depth interviews reported that CTs had actually reduced sexual exploitation among girls. Below is an excerpt from one of the in-depth interview participants:

> Before social cash some families used their female children as breadwinners. They sent them to go and have sex for money to be able to feed their families or they will give them to elderly men who have money as their wives. But because of the social cash, some of the children are back in school and doing well (key informant, religious leader, male, 53).

This is corroborated by evidence from Uganda, which revealed substantial positive effects of a multifaceted economic empowerment intervention on decreasing participants' self-reported sexual risk-taking. Similar positive impacts of CTs on preventing sexual exploitation have been noted in Kenya's emergency CTs aimed at improving food security and Malawi's Zomba CT project. These results suggest a growing consensus on the protective impacts of CTs through preventing negative coping strategies, such as survival sex and the use of children in prostitution.

Table 12.1 Respondents' reports of child work at mid-term

Is your child likely to work for an income?	Intervention n=81 %	Control n=82 %
More likely	5	13
No change	25	34
Less likely	70	52

Source: Miller and Themba, 2012

While evidence of the effect of CTs on child labour in fragile states is rather limited, the research results from the Bomi cash transfer pilot scheme show that the impact of CTs on child labour is mixed. In the context of the study, child labour was defined as work that deprives children of their childhood, their potential, and their dignity, and that is harmful to physical and mental development (IPEC, n.d.). As shown in Table 12.1, at mid-term point, a greater percentage of respondents in the intervention group (70 per cent) than in the control group (52 per cent) reported that their children were less likely to work (p<.05).

However, qualitative results at end-term showed mixed impacts of CTs on child labour. On the positive side, in-depth interview participants confirmed that child labour had reduced in intervention households as a result of CTs. One of the key informants stated: 'Before social cash some children used to go to break wood, sell it before their family can find food to eat. Some children had to sell before they eat, but since social cash came child labour has reduced' (key informant interview, local leader, male, 65).

This corroborates evidence from Latin America and the Caribbean, which found that CTs were effective in reducing child labour (Thompson, 2014: 364). However, qualitative results from FGDs with children in Bomi show that CTs contributed to child labour. Some child participants reported that as a result of small businesses initiated by their parents, they were constantly called upon to sell merchandise from the small businesses, mainly after school. The qualitative analysis therefore seems to suggest that CTs can lead to increased child labour, particularly in small businesses as beneficiary households invest some of the accrued savings. This could also be attributed to the fact that beneficiary households were basically labour constrained and hence relied on their children for labour. Similar research carried out in 2005 by Save the Children in Meket Woreda in Ethiopia has also found that the asset creation associated with the CTs created the necessity of drawing on family members, including children, for labour support (Thompson, 2014).

The impact of conditional cash transfers on education in fragile contexts is well documented (Yablonski and O'Donnell, 2009; Thompson, 2014). Thompson (2014: 365) identifies four key protective aspects of education in fragile contexts, namely:

a) Raising communities' awareness and ability to systematically respond to threats faced by children; b) Involving teachers in delivering disaster

risk reduction and protection-related information to children and their families; c) Involving teachers in monitoring protection issues and responding to individual child protection cases; and d) Mobilizing children to initiate activities to protect themselves and their communities.

Thus, by increasing school enrolment rates, CTs indirectly contribute to improved child protection outcomes.

Quantitative research evidence from the Bomi social cash transfer pilot scheme at both mid-term and end-term evaluation, shows that CTs have significant impact on school enrolment. As shown in Figures 12.1 and 12.2, at mid-term, a higher proportion of girls aged 5–17 years in intervention households (94 per cent) than in control households (85 per cent) were enrolled in school (p<.05). A higher proportion of boys aged 5–17 years in intervention households (89 per cent) than their control counterparts (85 per cent) were reportedly enrolled in school. The impact of CTs on school enrolment was also confirmed at end-term with a higher proportion of girls aged 5–17 years from intervention households than control households (92 per cent vs. 88 per cent) reportedly enrolled in school; and a higher proportion of boys aged 5–17 years from intervention households than control households (90 per cent vs. 86 per cent) reported as enrolled in school. The results corroborate Yablonski and O'Donnell's (2009) claim that CTs increase children's access to education in fragile contexts.

Although in logistic regression models gender was not a significant predictor of enrolment, the results still showed some gender impacts with regard to school enrolment at mid-term and end-term points. The results showed that a higher percentage of girls in relation to boys enrolled in school at mid-term and end-term (94 vs. 89 and 92 vs. 90 respectively). It can be surmised from
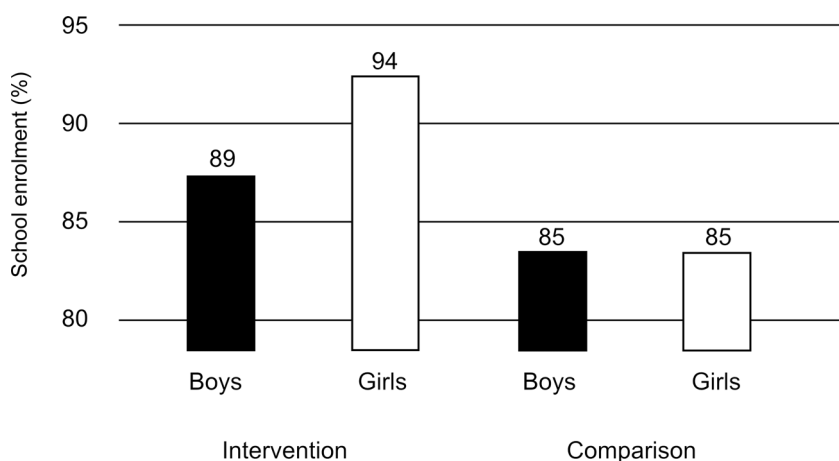
Figure 12.1 School enrolment at mid-term
Source: Miller and Themba, 2012
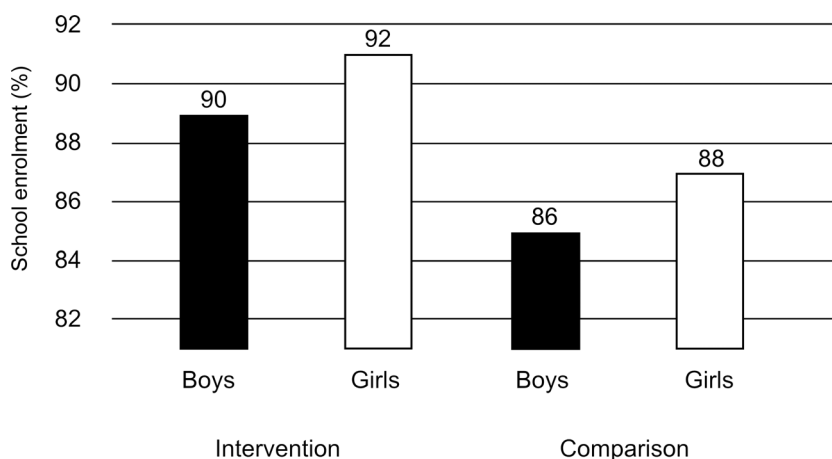
Figure 12.2 School enrolment at end-term
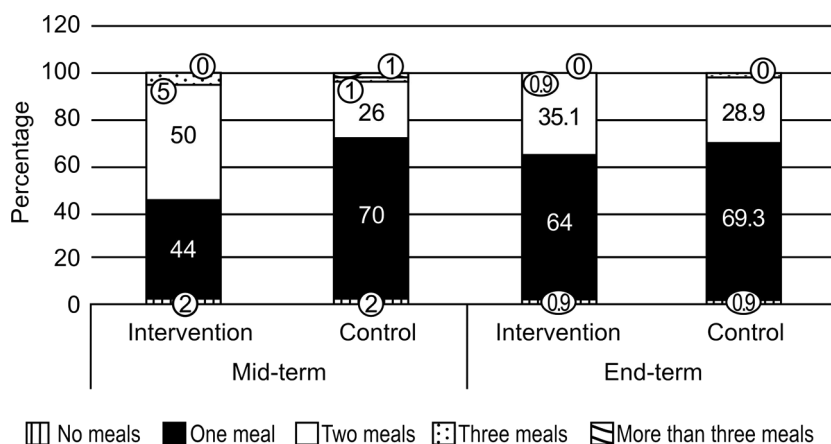*Source*: UNICEF, 2015

these results that the social cash transfer scheme addressed gender disparities in access to education. Other studies have established a positive correlation between school enrolment and asset ownership. For example, a joint evaluation of the pilots covering Chipata, Kalomo, and Kazungula districts found impacts varied by district and between households, depending on their asset ownership levels (RHVP, 2009). However, in this study, asset ownership did not come as a significant predictor of school enrolment. School enrolment could have been driven by the educational bonus, which functioned as an incentive for school enrolment, particularly for girls' enrolment. Extremely poor households often prioritize boys' over girls' education when faced with limited financial resources. The educational bonus triggered increased girls' school enrolment by increasing the opportunity cost of pulling girls out of school.

The impact of CTs on access to food is crucial in transforming the well-being of children. Evidence in Africa shows that CTs directly contribute to food security. For instance, an evaluation of Kenya's Hunger Safety Net Programme (HSNP) showed that beneficiary households were able to have regular meals and were no longer going for long periods without food (Handa et al., 2015). Similarly, the Ethiopian Productive Safety Net Programme showed a reduction of hunger in households receiving both CTs and food (Cherrier, 2014). In the study of the Bomi social cash transfer scheme, impact on food security was measured in terms of self-reported number of meals taken per day, and self-reported levels of satisfaction with the quantities of food taken. Qualitative data from FGDs with children and in-depth interviews with key informants was used to triangulate the findings.

The findings revealed that CTs had a transformative impact on food consumption among intervention households. At mid-term, 90 per cent of

respondents in the intervention group and 26 per cent of respondents in the control group reported that food intake had improved over the past year (p<.001). In addition, as illustrated in Figure 12.3, at mid-term, more than double the proportion of respondents in the intervention group (55 per cent) reported having at least two meals a day compared with 28 percent in the control group (p<.01). However, at end-term, 35 per cent of intervention households had two meals per day compared with 28.9 per cent in control households (p<.0001). Results indicate that the impact of CTs on food security in fragile stages diminishes over time and dramatically declines when the CTs stop. This points to one potential weakness of CTs in fragile contexts – their inability to sustain positive effects in the medium to long term. Another factor that tends to reduce the transformative potential of CTs on food security in fragile contexts is linked poor food markets. In such cases, Holmes and Lwanga-Ntale (2012) argue that CTs alone may not translate into food security for the beneficiary households, advocating for augmenting CTs with food assistance.

At mid-term and end-term evaluations, respondents from the intervention group reported a higher level of satisfaction with the amount of food taken compared with the control group. As shown in Figure 12.4, at mid-term, nearly 70 per cent of respondents from the intervention group reported being satisfied with the quantity of food consumed compared with only 47 per cent from the control group (p<.001). At end-term, 75.7 per cent of respondents from the intervention group reported that they were satisfied with the amount of food they took compared with only 41.2 per cent from the control group (p<0.1). The results indicate that though there was a significant drop in the number of intervention households having two meals a day, they remained more satisfied with the amount of food they took than the control households. The

Figure 12.3 Number of meals taken per day
Source: Miller and Themba, 2012; UNICEF, 2015
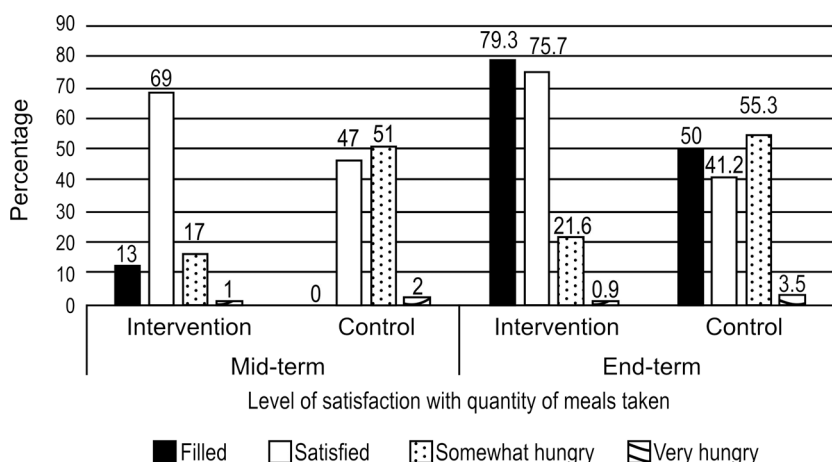
Figure 12.4 Household distribution by satisfaction with quantity of meals
Source: Miller and Themba, 2012; UNICEF, 2015

impact of CTs on satisfaction with quantity of food consumed is corroborated by qualitative results. One child participant in the intervention group had this to say: 'We are all happy. We are always satisfied when we eat. And I think this is most important in life: when you have food to eat' (FGD, intervention child, female, 15).

Evidence also shows a positive link between food security and protection impacts of CTs. For example, while the objective in the Oxfam implemented CT in Kenya was to improve food security, early evidence showed that a number of children were able to return home from living on the streets, return to school, or stop the practice of scavenging for food (Thompson, 2014). Similarly, in a programme of food rations and CTs implemented in Eswatini in response to a drought and food crisis in 2007–2008, recipient adults cited a decrease in girls engaging in transactional sex, a reduced amount of stealing among children, and improved behaviour as some of the child protection outcomes (Thompson, 2014).

Another area to be explored is the impact of CTs on children's health, mental health, and psychosocial well-being in fragile contexts. A baseline study for a savings and family-based intervention scheme in Burundi showed that poverty and stress about economic survival among grown-ups had negative ramifications on distress levels among children (Thompson, 2014). From this finding, it was construed that CTs have the potential to decrease the stress caregivers feel in meeting survival needs. As a result, children receive less physical and verbal chastisement, and their well-being is enhanced. Qualitative results from the study of the Bomi social cash transfer pilot scheme suggest that CTs led to improved psychosocial well-being among intervention households. One in-depth interview participant reported that CTs had mitigated the mental

health burden that poverty brings and noted that the cash transfer relieved the stress among people from intervention households. As one health worker commented in an in-depth interview: 'I have seen some of them changing. They are now happy when they bring their children for health check-ups. I think social cash has reduced their stress' (in-depth interview participant, health worker, male).

The positive impact of CTs on psychosocial well-being is corroborated by findings from an evaluation of CTs in Somalia in 2013, which indicated that CTs contributed to a reduction of tension associated with limited income at the household level. The evaluation further noted that this general reduction in stress, in turn, reduced children's exposure to domestic violence (Somalia Cash Consortium, 2013).

Evidence from the Bomi social cash transfer pilot confirms the transformative effects of CTs on child health. In the context of the study, child health was measured by reported health status of the child and reported health-seeking behaviour of the households. A higher proportion of households receiving CTs reported that their children's health status had improved over the previous year. In the mid-term evaluation data, 74 per cent of intervention households reported that their children's health had improved over the previous year compared with only 37 per cent of control households (p<.001). In the end-term evaluation data, the proportions of intervention and control households reporting that the health status of their children had improved over the previous year dropped to 47 per cent and 35 per cent, respectively (p<.01). This overall reduction in perception of child health could be linked to the impact of the Ebola virus disease (EVD) outbreak on the respondents' perception of their children's health status. However, the fact that even after the EVD outbreak, more intervention than control households reported improved health status for their children reflects the importance of CTs in increasing resilience during humanitarian crises. One of the in-depth interview participants said: 'The social cash transfer improved health seeking behaviour, because most of them used to take herbs because of no money for transport, now that they have money they prefer going to the health facility than taking herbs' (in-depth interview participant, female local health worker). Qualitative findings confirmed the impact of CTs on health seeking behaviour.

The direct positive impact of the CTs on children's health also confirms the central claim of the child-sensitive framework that social protection should address the age- and gender-specific risks and vulnerabilities of children, and strengthen the capacity of families to respect, protect, and fulfil child rights.

Most fragile countries suffer from generally poor infrastructure, including protective environments for children. In the aftermath of conflict, most children are left with no home, which contributes to family separations. In fragile contexts, CTs can prevent family separations in two ways: first, by strengthening families and supporting foster care arrangements for already separated children. Second, CTs can improve housing conditions, which may contribute to building a protective environment for children. For example, CTs have

been used in the Democratic Republic of Congo, Liberia, Indonesia, and Haiti to assist caregivers who have taken in detached or unaccompanied children (Thompson, 2014). In post-tsunami Indonesia, CTs were given to foster-carers who took in separated and unaccompanied children. The research found that the use of CTs reduced families' recourse to institutional care and therefore minimized secondary separation. The study of the Bomi social cash transfer pilot scheme sought to examine the second point by assessing the transformative impact of CTs on housing conditions. Both quantitative and qualitative results indicate that intervention households were able to use the cash transfer to increase the rooms of the houses, contributing to improved privacy for both parents and children, and in turn, to creating a safe and protective environment for children. As illustrated in Table 12.2, more intervention households than control households reported that their housing structures had provision for living rooms (14.4 per cent vs. 10.5 per cent), bathrooms (6.3 per cent vs. 2.6 per cent), and kitchens (6.3 per cent vs. 0.9 per cent). Conversely, more respondents from control than intervention groups reported roof leakages (47.1 per cent vs. 34.2 per cent) and damages that exposed them to danger (21.1 per cent vs. 19.8 per cent). These results were significant with coefficient values .501 and .395, T-values of 6.876 and 7.545, and p-values of .0001.

Table 12.2 Housing structure and amenities

Housing structure and amenities	Intervention n=111 %%	Control n=114 %
Roof		
Zinc	98.2	96.5
Grass/Thatch	1.8	3.5
Walls		
Bricks and cement	15.3	17.5
Mud and sticks	84.7	82.5
Floor		
Cement	41.4	38.6
Earth	58.6	61.4
Space		
Living room	14.4	10.5
Bathroom	6.3	2.6
Kitchen	6.3	0.9
Condition of housing		
Leakage	34.2	47.1
Damage exposing household to danger	19.8	21.1

Source: UNICEF, 2015

From these results, it can be concluded that by creating a safe and protective environment for children, CTs preserved families and prevented potential family separations. It can also be inferred that, with better housing conditions, children from intervention households were more protected from disease and harm than their counterparts from control households. These results support the child-sensitive social protection framework which emphasizes that social protection should strengthen the capacity of families to respect, protect, and fulfil the rights of children, in this case, the right to child survival and development and protection from all forms of harm.

Qualitative data from the evaluation of the Bomi social cash transfer pilot scheme revealed that despite the positive transformative impact of the CTs, there were some negative impacts on child well-being. Among these were reports of misuse of cash by some of the household heads.

For example, one key informant reported: 'Some of them when they get that money they can't sit down, drinking, looking for woman or man. As for relationship, some of us feel bad but we can't do anything, we here' (in-depth interview participant, male community leader).

Misuse of CTs was reported to be more persistent in households headed by men, which suggests the importance of gender dynamics in the design and implementation of CTs in fragile contexts. Some participants in FGDs also reported that the transfer amount was not enough to assure adequate food and other basic needs in their households: 'I know of a single mother of six, she still struggles to afford food for her children' (FGD, intervention child, female, 16).

The results suggest that in most fragile contexts, it is crucial to monitor the economic environment during the implementation of CTs. In contexts characterized by weak and unstable local currencies, the value of the transfer is exposed to erosion by inflation.

CTs also resulted in community level tensions, particularly jealousy and animosity between recipient and non-recipient households. This was highlighted by some of the key informants: 'It increased the risk of violence in the community because it broke relationships' (key informant, pastor, male, 49).

These findings corroborate similar concerns from other programmes. For example, Jones et al. (2005) observe that one concern about targeting is its potential to create social tensions or stigmatization. In Malawi, the most commonly mentioned problems were 'nepotism', that people who were eligible were left out, or that there was a lack of understanding of the programme and selection. The negative perception created some jealousy and conflict within communities (Miller et al., 2008). It can be stated that intra-community tensions as revealed in this study, might have led to stigmatization of children from intervention households, which might have compromised their psychosocial well-being. The differential impacts of CTs on child well-being in the fragile contexts point to critical context-specific challenges of implementing CTs in fragile contexts. Fragile countries generally suffer from weak social service systems, which makes regular follow up and case management for problematic households difficult.

Recommendations for increasing transformative effects

The study findings have amply demonstrated that although CTs had transformative effects on child well-being, they also had differential impacts. Against this backdrop, the following recommendations are therefore drawn.

First, it may be worth considering introducing some 'soft conditions' in Liberia to reduce the use of transfers on socially undesirable expenses. Such 'soft conditions' may include ensuring non-use of children in paid work, and ensuring that children attend occasional health check-ups. Community-based case management will also be useful in identifying and supporting households which may be misusing the money, or neglecting the children under their care. Second, to address concerns with the transfer amount, it is important to constantly monitor market trends and accordingly effect cost of living adjustments.

This study has revealed that complaints with the beneficiary selection process were largely fuelled by lack of understanding of the selection procedure. It is therefore important to introduce communication for development initiatives to increase community awareness of the scheme's selection criteria. It may also be useful to introduce a complaints handling mechanism that ensures that individuals may be able to safely report suspected cases of corruption in the programme implementation process. Additionally, differential impacts of the cash transfer, albeit limited, were noted with regard to practices of child labour. Households experiencing these adverse effects need to be provided with targeted services such as home visits and counselling. Finally, to maintain high impacts on child well-being, social CTs should be predictable and long term and accompanied by complementary social services underpinned by a community-based case management system.

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About the authors

Christopher Ngwerume is a child protection expert with over 15 years of experience with the UN and other humanitarian organizations. He has supported governments in designing and implementing social protection and child protection programmes in Africa. He holds a PhD in Social Work from the University of Fort Hare, South Africa.

Pius T. Tanga is a Professor of Social Work with the University of Fort Hare, South Africa. He has conducted academic and policy oriented research and teaching in the fields of social welfare, social protection, and HIV/AIDS. He has written extensively and presented academic and policy papers in national, regional, and international conferences.

CHAPTER 13

Rethinking public finance for children: Monitoring for results in Uganda

Diego Angemi, Margaret Kakande, Imran Aziz, Darlington Senoga, Sheila Depio, and Amna Silim

Abstract

Building on the Ugandan Government's existing output-oriented budget monitoring framework, this chapter discusses an innovative analytical framework, embedded in the Uganda Equity Atlas, to monitor the effective delivery of national programmes affecting children. This approach utilizes publicly available data to link financial releases to sector outcomes, with a view to identifying spending efficiency variations across district local governments. This provides an example of how government efforts can potentially strengthen the link between spending, outcomes, and impact. Through three educational sector case studies, we highlight that regional differences in educational outcomes are not fully explained by variances in spending allocations and raise questions regarding the spending efficiency across and within sub-regions. We find that factors such as local government leadership and accountability influence outcomes, as well as complementary investments such as targeted social protection interventions and/or context-specific measures.

Keywords: public finance, education, monitoring results, education sector, Uganda

Introduction

In an effort to strengthen basic service delivery and monitor its efficacy, the Government of Uganda has taken steps towards adopting programme based budgeting (PBB). This shift reorients the government's focus from effective delivery of key outputs (i.e. 'following the money') to monitoring the impact of key public investments and vital outputs on social outcomes. This is a step change from traditional monitoring practices, requiring a clearer link in the results chain between spending and outcomes.

In Uganda, like many other African countries, government commitment to strengthening basic service delivery and monitoring the implementation of national programmes affecting children is traditionally demonstrated through a) allocation of funding and b) the effective provision of key outputs

such as classrooms. However, over time it has become increasingly evident that the relationship between spending and expected outcomes is not always as clear or direct as anticipated. While funding can be an important driver of outcome performance, this is not the only factor determining social and economic outcomes. For example, in a number of joint policy briefs, the Ministry of Finance, Planning and Economic Development; the Economic Policy Research Centre; and UNICEF Uganda have shown regional variations in outcome performance despite similar funding allocations.[1] This evidence points to a complex interplay of financial and non-financial factors driving results, and raises questions around the efficiency of spending. Gaining a better understanding of these factors can help better prioritize and allocate limited financial resources to achieve improved social outcomes, in line with PBB objectives.

To better understand the link between funding and outcomes and building on the government's efforts to adopt evidence-based budget planning, this chapter presents a monitoring framework to assess the efficacy of public investments in basic services affecting children. This monitoring framework, embedded in the Uganda Equity Atlas, helps to identify financial and non-financial budget implementation bottlenecks hindering efficiency and, ultimately, compromising the impact of public spending. The Atlas also leverages the government's commitment to promote transparency and accountability in the use of public funds.

The Atlas, which was developed in partnership between the Uganda Ministry of Finance, Planning and Economic Development (MoFPED); the Economic Policy Research Centre; and UNICEF Uganda, uses publicly available performance and budget-related data to provide an interactive platform for analysis of budget trends at regional and district levels.[2] It provides a focus on the impact of public investments on equity and other social outcomes such as school completion, immunization, and hand-washing. This analytical framework and its associated processes offer three distinct advantages: 1) the ability to identify significant variations across the country when per capita spending is mapped against outcome performance; 2) verification of the complex mix of potential financial, non-financial, and other factors that could affect outcomes; and 3) a combination of data analysis, beneficiary feedback, and budget monitoring to explore these issues further.

This chapter's structure follows with an overview of the education sector outcomes and related budget data, which is then extended with a deeper analysis that showcases the analytical framework embedded in the Atlas by presenting three case studies assessing the effectiveness of public spending on education. These case studies reveal that regional differences in performance cannot solely be attributed to inadequate allocations. We highlight that factors such as local government leadership and accountability, complementary investments such as targeted social protection interventions, and/or context-specific measures also impact outcomes, before concluding.

### Education sector outcomes and spending trends

Education is a fundamental human right (Lawson et al., 2020) as well as a catalyst for human and economic development. Recognizing the value of education to the well-being of its young population, in 1997 the Government of Uganda introduced Universal Primary Education (UPE), a programme providing free education to all children of primary school age. Subsequently, through the UN Millennium Development Goals (MDGs), Uganda further committed to ensuring delivery of a full course of primary education to all children by 2015. According to the UNDP (2015) report, notable gains attributed to UPE include increased enrolment, a general upsurge in primary school completion, and the elimination of gender disparities between girls' and boys' completion rates.

However, at the turn of the millennium, Uganda experienced a marked shift in government priorities away from social sectors such as education, and towards infrastructure. In this regard, the share of education sector spending as a proportion of total government spending and as a proportion of GDP declined sharply (Figure 13.1). Most alarmingly, during the same time-period and since the introduction of UPE in 1997, non-salary funding for primary education to local governments has been declining in real terms per pupil. By 2015, as we collectively reflected on progress vis-à-vis the MDGs, spending on education in Uganda was significantly lower than the regional average (Figure 13.2).
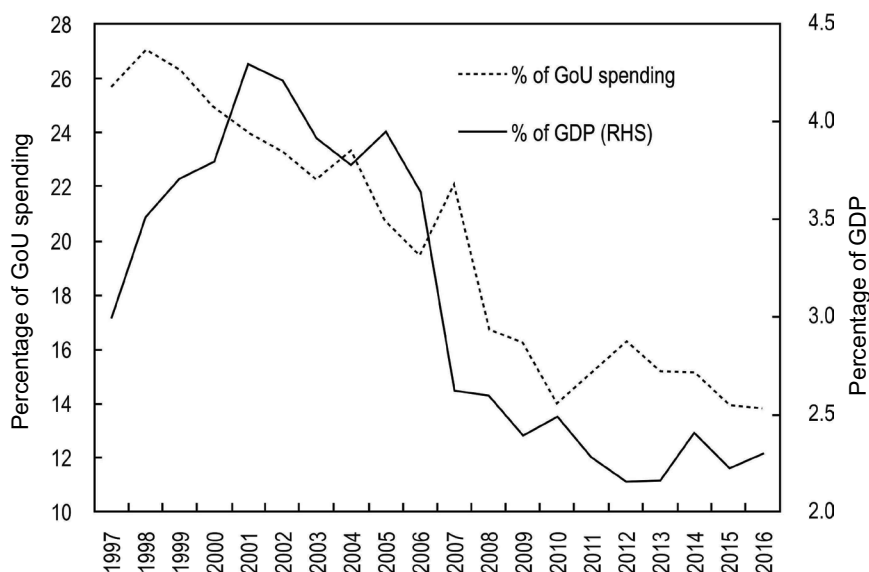
Figure 13.1 Uganda education expenditures
Source: MoFPED medium-term expenditure frameworks and annual budget performance reports[3]
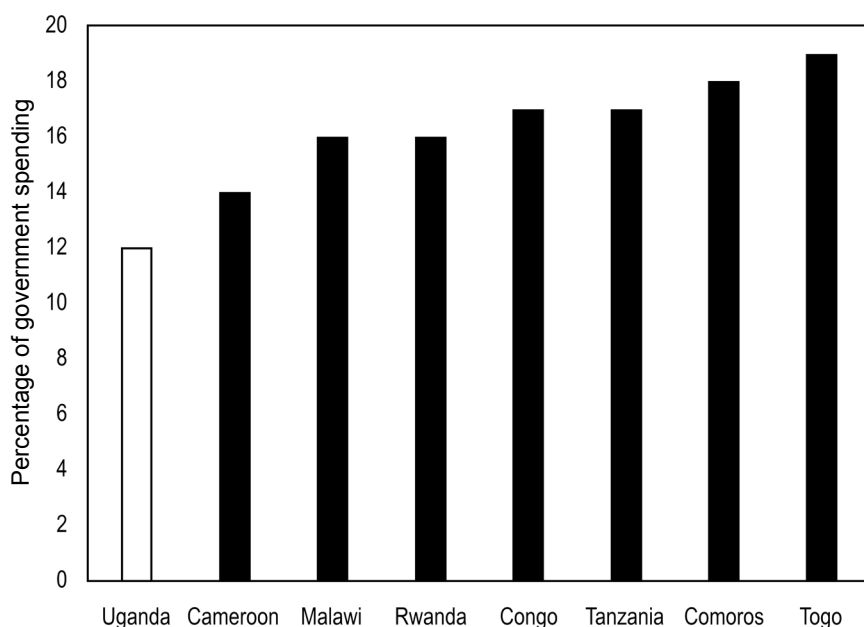
**Figure 13.2** Uganda education expenditures vs. peers (2015)
Note: Peers selected based on countries that have attained a similar level of progress in primary education
Source: World Bank Development Indicators[4]

   Visible examples of constrained public include the UPE capitation grant for operational support to primary schools (to cover the loss of school fees) and the schools' facilitation grant (SFG) for the construction of classrooms and latrines and the provision of furniture. Compounding the strain on resources are the introduction of universal secondary education in 2006, and more recent efforts to scale up vocational education, combined with the likely increase of the early grade 'traffic jam' due to Uganda's relatively high total fertility rate. Resource shortfalls are also a reality in school inspection and teacher training.

   Against the background of reduced funding to the education sector, Uganda is experiencing significant challenges in the performance of key educational outcomes. To this effect, Uganda's primary education completion rate declined from 60 per cent in 2001–2005 to about 55 per cent in 2011–2015. As a result of these trends, the 2015 MDG Report for Uganda revealed that MDG 2 had not been successfully achieved by 2015 (UNDP, 2015).

   This decline is in sharp contrast to the improving rates in other East African Community, sub-Saharan Africa, and low-income developing countries (Figure 13.3). In addition to declining primary completion rates, dropout rates remain high, with two out of three enrolled students not completing primary education; in turn, survival rates into lower secondary are worse than most regional and African peers (Figure 13.4). Children are stuck in early primary
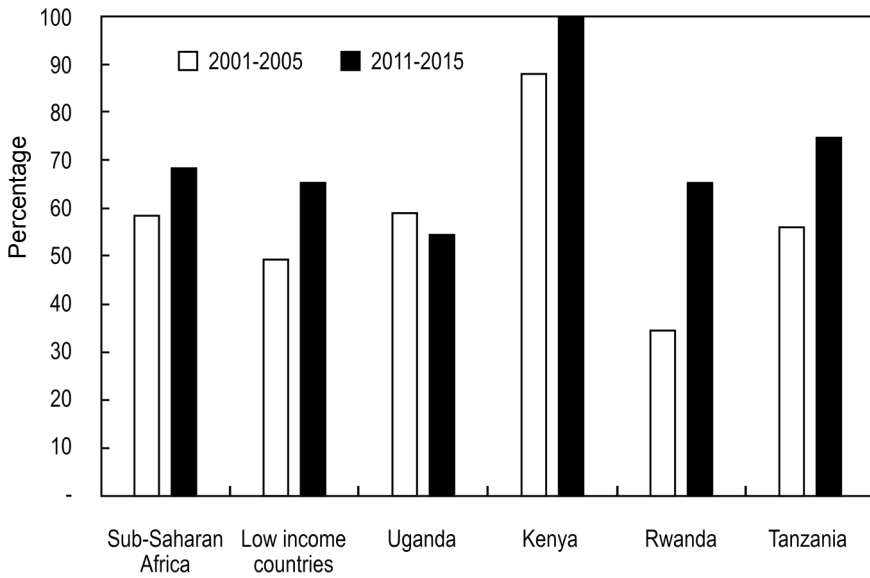
Figure 13.3 Primary school completion rate
Source: World Bank development indicators and service delivery indicators[4, 5]
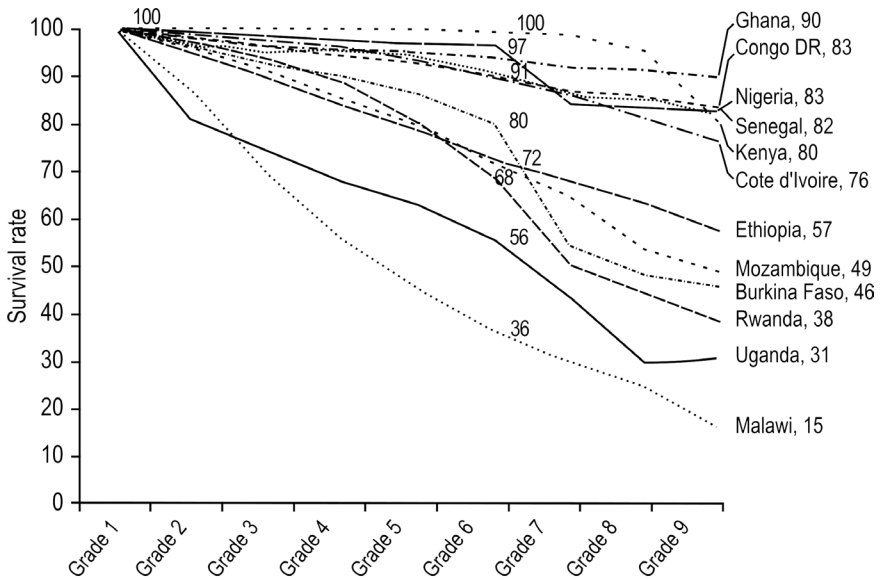
Figure 13.4 Survival rates into lower secondary school
Source: Bashir et al., 2018

school grades, and by the end of grade 4, just over 35 per cent of students in Uganda can read a paragraph compared with twice that proportion in Kenya (Bashir et al., 2018).

Inadequate targeting and resource shortfalls for school inspection and teacher training have led to multiple leakages in teacher management in Uganda, such as teacher absenteeism and problems with teacher recruitment (Bashir et al., 2018). While declining budget allocations are closely associated with (and arguably responsible for) much of the worsening outcome performance in the education sector, it is unlikely this expenditure trend will change significantly over the medium term. In the wake of the current political economy, characterized by shrinking fiscal space, and the government's clear economic growth-driven policy agenda, improvements in social outcomes require bold measures to remove budget implementation bottlenecks, identify efficiency gains, and promote better targeting of financing within social sectors. To illustrate, the following case studies provide a detailed account of the interplay between district-specific budgetary allocations vis-à-vis regional and sub-regional variations in sector outcomes across Uganda. Notably, the following case studies are significantly based on three joint policy briefs developed in partnership between the Uganda Ministry of Finance, Planning and Economic Development; the Economic Policy Research Centre; and UNICEF Uganda by the authors of this chapter. Full references are provided in the title of each case study.

Case Study 1 (Policy Brief No. 4/15): Understanding social barriers to primary education in the Karamoja sub-region (FY 2013/14)

To further investigate trends in completion rates, this case study used the Atlas to explore the fiscal and social barriers impacting completion rates in Karamoja, the poorest and most deprived sub-region in the country. Notably, Uganda is divided into over 130 districts, which can be grouped into 15 sub-regions: Acholi, Ankole, Bugishu, Bukedi, Bunyoro, Busoga, Kampala, Karamoja, Kigezi, Lango, North Central, South Central, Teso, Tooro, and West Nile.

Through careful scrutiny of primary completion rates vs. education releases per pupil, this analytical framework reveals that in FY 2013/14 the Karamoja sub-region received the highest education release per pupil, yet it recorded the lowest primary completion rate nationwide. Within the Karamoja sub-region, the Atlas points to large disparities in the level of total education release per pupil across individual districts. Complicating matters further, there does not appear to be any correlation between the level of per pupil allocations released to individual districts and improvements in total completion rates. To illustrate with an example, whereas Moroto's total education release amounted to nearly four times (in per capita terms) that of Napak, the two districts accounted for similar completion rates. This evidence raises some pertinent questions regarding the efficiency of spending across and within sub-regions.

From a fiscal perspective, with four times the budget of Napak, the evidence thus far places Moroto district at an advantage in the effective delivery of basic education services. Comparing input indicators, the evidence further reiterates Moroto's advantage, with significantly lower ratios of pupils per teacher (Moroto: 23 vs. Napak: 73), pupils per latrine (Moroto: 29 vs. Napak: 70), and pupils per classroom (Moroto: 31 vs. Napak: 66). Moreover, this analysis shows that school-attending children in Moroto benefit from the lowest number of pupils per teacher in the Karamoja sub-region.

Additionally, in FY 2013/14 district officials in Moroto accounted for considerably higher budgetary allocations than their counterparts in Napak. To illustrate:

- *Average inspection release per school*. Moroto: UGX 422,500 (approx. US$112) vs. Napak: UGX 247,475 (approx. $66).
- *SFG per pupil*. Moroto: UGX 93,202 (approx. $25) vs. Napak: UGX 17,553 (approx. $5).[6]
- *UPE capitation per pupil*. Moroto: UGX 8,660 (approx. $2.3) vs. Napak: UGX 7,877 (approx. $2).

Notwithstanding such advantages in budgetary allocations and input indicators, Moroto has similar low completion rates to those of Napak. This suggests that perhaps there are different barriers beyond funding to completion in the various sub-regions.

In an effort to gain a deeper understanding of budgetary allocations, as well as their interplay with social dynamics, and impact on outcomes, the analysis presented above was complemented by a series of field visits involving focus group discussions (FGDs) and key informant interviews (KIIs) with district education and administration officers, primary school teachers and headteachers, pupils, parents, and community members. This qualitative component targeted 40 to 50 per cent of primary schools in both Moroto and Napak. The selection of respondents within each district was random in nature but designed to represent most if not all sub-counties in the selected districts. Several criteria for the choice of schools were used, including best performing schools, worst performing schools, highly populated schools, and those with the lowest enrolment figures according to available district surveys. District education officers, district inspectors of schools, sub-county chiefs, and the national budget website informed the choice of facilities.

Reports from the field singled out affordability, household poverty, negative attitudes towards education, and various aspects of poor quality of education as key factors affecting school attendance. In terms of affordability, focus group discussants in Napak voiced concern over additional fees being required by heads of school for payment of support staff (e.g. teaching assistants referred to as 'helpers'), supplies for feeding, school uniforms, and payment of catering staff. Discussants in Napak went as far as to question the validity of taking children through the primary school cycle, in view of the fact that with only three secondary schools, secondary education in Napak remains prohibitively

expensive and ultimately inaccessible in most sub-counties. Notably, recent evidence from the Uganda National Household Survey (UNHS, 2016/17) indicates that in the Karamoja sub-region, 77.8 per cent of children are deprived of school fees, uniform, and scholastic materials because their parents cannot afford it.

Ninety per cent of respondents in Moroto identified negative attitudes towards education as one of the main reasons for low completion rates. Cattle rearing, marrying off girls while young (and before they engage in relationships at school), and growing business opportunities due to rapid urbanization in Moroto were clearly highlighted as opportunities yielding better, quicker, and more tangible returns than investments in education. Harmful social norms affected young girls disproportionately – in Moroto 53 per cent of girls and 44 per cent of boys were absent from school at the time of the visit. Notably, negative attitudes towards education are not unique to the Karamoja sub-region, which impacts the quality of education and not just completion rates. Further analysis from the Uganda Equity Atlas in the Lango sub-region identified negative attitudes towards education, together with high pupil-classroom ratios (PCR) and pupil-teacher ratios (PTR), the automatic promotion system, and lack of qualified teachers and thematic books as key factors as affecting the quality of education. A deeper understanding of the importance of investing in the quality of education to improve sector outcomes is presented in Case Study 2.

Finally, on various qualitative aspects of education, pervasive teacher absenteeism in Moroto and high pupil-teacher ratios in Napak emerged as the main hindrances to the effective delivery of basic education services. Notwithstanding a lower teacher ceiling than Moroto (528), Napak (303) caters for a significantly larger population of school-going children (Napak: 18,023 vs. Moroto: 7,625). Common interventions by field group discussants in Napak challenged the value of 'sending a child to school only to be taught by teaching assistants who are dropouts'. Respondents also highlighted a real challenge in reducing teacher absenteeism due to lack of teacher accommodation, in turn forcing facilities' managers to convert valuable classroom space into homes for their teachers. Notably, teacher absenteeism was reported to fluctuate between 22 and 25 per cent in Napak and Moroto during the time of the visit. A more elaborate assessment of absenteeism as a key driver of poor performance in primary education is articulated in Case Study 3.

On the basis of the trends depicted above, it can be concluded that low completion rates in Moroto and Napak are unlikely to be addressed by the same set of interventions, and funding does not fully explain spatial variations. Whereas classroom congestion, unavailability of teachers, and/or lack of public resources may explain low completion rates in Napak, school-going children in Moroto may be at greater risk of being subjected to harmful social norms and cultural practices embedded in negative attitudes towards education. Complementing this analysis, a U-Report in Moroto found approximately 1,200 U-Reporters cited affordability (i.e. hidden costs of education)

(35 per cent), followed by violence (30 per cent), and absenteeism (20 per cent) as key factors affecting school attendance.[7]

Case study 2 (Policy Brief No. 3/16): Identifying key factors in the delivery of quality education in the Lango sub-region (FY 2011/12)

Although there have been significant advances in the education sector in Uganda, the quality of education remains a challenge. According to the Situation Analysis of Children in Uganda (UNICEF, 2015a), only one in five primary school teachers is competent in English and Mathematics, and 60 per cent of schoolteachers are not in school teaching. Similarly, according to the National Assessment of Progress in Education (NAPE, 2012), merely 53.8 per cent of Primary 3 pupils and 40.8 per cent Primary 6 pupils satisfy pre-defined proficiency levels in literacy and English. Notably, the evidence points to no significant gender disparity in literacy achievement levels, although more boys than girls attain the desired rating in numeracy. Digging deeper, this case study provides a richer understanding of the importance of investing in the quality of education to improve key sector outcomes. Specifically, the case study explores the variation in quality of education in the Lango sub-region.

Spatial analysis of budgetary allocations and pre-selected education outcome indicators from the Uganda Equity Atlas suggests that in spite of receiving a higher budgetary allocation than 9 of the 15 sub-regions, Lango accounts for a primary leaving examination (PLE) pass rate below the national average and the lowest level of Primary 3 competence nationwide. Most alarmingly, this analysis shows no clear relationship between cumulative education releases per capita and competency levels in literacy and English at sub-regional level. Financial allocations notwithstanding, there appears to be a more systematic relationship between the quality of education, measured by the PTR and the PCR, and Primary 3 competence levels. Notably, poor quality correlates remarkably well with inadequate outcomes as reflected by high PTR and PCR vis-à-vis low levels of Primary 3 competence, and vice versa.

Lango also suffers from a PTR above the national average, and the fourth highest PCR in Uganda. A closer look at inputs affecting the quality of education within the Lango sub-region reveals that Kole district has a slightly lower PTR than Alebtong, although the PCR for Kole is higher than Alebtong. Further, while more than 95 per cent of teachers in all districts are grade 3 qualified and above, both Kole and Alebtong account for stagnating low rates of Primary 3 competence in literacy and English which are far below the PLE pass rates recorded at district level.

Evidence from the field supports the earlier analytical finding that alarmingly high PCR and PTR represent a significant barrier to the effective delivery of primary education in Kole, Alebtong, and the Lango sub-region as a whole. More specifically, FGD respondents identified high PCR and PTR, compounded by teachers' and parents' negative attitudes towards education, as

key factors leading to high levels of teacher and student absenteeism as well as poor syllabus coverage in both lower and upper primary. Absenteeism, discussed in greater detail in Case Study 3, and quality of education are important determinants of educational outcomes. In terms of negative attitudes towards education, teachers argued that while the government encourages teachers to upgrade their education levels, salary scales are not sensitive to this. In turn, teachers feel justified in exploring alternative means of earning, often at the expense of time in the classroom. Unsurprisingly therefore, absenteeism of headteachers and teachers from duty was reported as rampant, especially for headteachers who are in the exit window. Teachers' absenteeism was also associated with alcoholism and inadequate accommodation. In these instances, however, it was clearly noted that many teachers are natives of the region and therefore immune from reprimand, on the basis that school management committees tend to be composed of individuals from the teachers' communities.

FGD respondents and KIIs also pointed to the automatic promotion system of students and a generally poor understanding of children's rights especially with regards to acceptable disciplinary measures as critical contributors to poor education outcomes. Students are promoted regardless of attendance. Weather and increasing labour demand during sowing and harvest seasons keep children out of school for very long stretches during the first two terms of the academic year. In the words of one of our KIIs, 'when children re-appear in school, they tend to move on to the next grade (promotion) irrespective of class performance'. Further, according to FGD participants, 'automatic promotion coupled with the fact that teachers feel powerless in terms of their ability to discipline children, either for missing school or committing other offences, have severely crippled the education system'.

On the demand side, community dialogue revealed that the majority of parents are not aware of the manifestations of low literacy and pass rates of their children. A deeper interaction showed that parents clearly perceive promotion as an indicator of knowledge directly linked to positive achievements in education.

With a view to enhancing the teaching and learning of literacy and numeracy in lower primary, the government introduced a thematic curriculum of early grade reading in local languages. The reason for this is that engaging pupils in local languages can help them develop the required skills and confidence to transition into English more easily. However, lack of qualified teachers and thematic books in lower primary was singled out as a significant challenge to achieving quality education. To this end, community members reported that many of the primary teachers were ill equipped and poorly trained in local language instruction. This was highlighted as a challenge especially in the Kole district.

On the basis of the trends set out earlier, while the link between the quality of education and funding is not clear, what is clear is that quality of education is related to other factors, namely PCR and PTR. Additionally, absenteeism,

negative attitudes towards education, and the automatic promotion system are also correlated with poor quality of education. More effective spending on addressing these barriers would likely improve the quality of education.

Case study 3 (Policy Brief No. 4/16): Absenteeism – key driver of poor performance in primary education in the Elgon sub-region (FY 2012/13 and 2013/14)

Achievements in the education sector notwithstanding, the efficiency of Uganda's primary education is low; survival rate to P7 stands at 32.1 per cent, repetition at 10.2 per cent (EMIS, 2014), and teacher absenteeism is estimated at 20–30 per cent (NPA, 2015). In investigating factors affecting performance and dropout in primary schools, emphasis has been placed on constraints such as PCR, pupil-textbook ratios, PTR, and teacher qualification, as well as the education level and financial situation of parents and/or carers. Consequently, policy recommendations have been focused on the improvement of school facilities, particularly classroom resources and teacher training. Although these remain vital inputs in the delivery of effective education services, current evidence suggests that chronic absenteeism of both teachers and pupils poses a real threat to the effective delivery of education.

Spatial analysis of budget allocations and pre-selected education outcome indicators from the Uganda Equity Atlas suggests that although Elgon received primary education releases per capita lower than in eight other sub-regions, this sub-region accounts for the highest completion rate (93 per cent) nationwide. Notably, however, the same sub-region is associated with the poorest PLE performance (43 per cent) in the country. By using the Atlas, this case study aims to provide a deeper understanding of the peculiar and concomitant relationship between high completion rates and poor PLE performance in the Elgon sub-region.

Within the Elgon sub-region, in spite of comparable primary education releases per capita, Bukwo (UGX 84,915 [approx. $23]) and Bududa (UGX 88,597 [approx. $24]) districts have the highest (142 per cent) and lowest (56 per cent) completion rates, respectively. Notably, whereas high completion rates in Bukwo are associated with the second lowest PLE performance (34 per cent) in the sub-region, low completion rates in Bududa are reported against the second highest PLE pass rate (49 per cent) in the sub-region.

While education release per capita in Bukwo and Bududa were similar in FY 2013/2014, the Atlas identifies stark disparities in the cumulative allocation of funding between these two districts. A deeper dive into cumulative allocations vis-à-vis outcome performance between FY 2012/13 and FY 2013/14 highlights growing inequities in primary education releases per capita within the Elgon sub-region. Whereas in FY 2013/14 the difference in primary education releases between Bududa and Bukwo was approximately UGX 4,000 (approx. $1), the cumulative difference in FY 2012/13 and FY 2013/14 was nearly six times higher (UGX 24,000 [approx. $6]). Arguably, sustained funding for

primary education may explain Bududa's marked improvement in PLE performance. This 6 per cent increase in the PLE performance rate, however, was accompanied by a 2 per cent decline in completion. To complicate matters further, in spite of lower cumulative releases per capita, while recording one of the largest reductions in PLE performance (4 per cent), completion in Bukwo district increased by an unmatched 15 per cent. The remainder of this section provides a deeper understanding of the status of education services in the Elgon sub-region by exploring the complex interplay of financial and non-financial factors responsible for marked variations in district-specific performance.

Evidence from the field distinctly identified absenteeism as a key bottleneck in the delivery of efficient and effective education services. Teacher absenteeism or 'late coming' was almost unequivocally associated with correspondingly high rates of pupil absenteeism and late coming. At the time of monitoring, the likelihood of children missing school, performing poorly, or dropping out of schools was invariably highly correlated with the absence of teachers from the classroom. A holistic approach to addressing the factors that cause absenteeism is critical to improving performance in primary schools.

Notably, the commendable PLE results in Bududa district were attributed to a small sample of schools benefiting from regular provisions of scholastic materials, mentoring of school administration, school feeding programmes, and most importantly, monthly assessments largely supported by non-governmental outreach programmes. On a related note, great variation in completion rates between Bududa and Bukwo seemed to result from the poor understanding and application of the automatic promotion system. Across the two districts, school attendance is very low in the course of the term and peaks during pre-determined periods, such as during enrolment and at the sitting of end of term examinations. In addition to partly explaining the reported high completion and low PLE performance, this evidence casts serious doubt on the validity of completion to measure sector performance.

With regard to poor school attendance, notwithstanding government efforts to raise awareness and advocate for greater parental involvement in terms of both social and financial support, parents remain hesitant to support children when it comes to providing funds for the purchase of scholastic materials and/or school feeding. Without meals, children attend school until they get hungry, prior to engaging directly or indirectly in alternative income generating activities. This is especially the case during Bududa's notorious market days of Tuesday and Thursday. In Bukwo, trade is mostly linked to its proximity to the Kenyan border, with teachers' attendance being more affected.

Absenteeism among girls is partly a result of them becoming vulnerable to early marriage and school dropout. To this effect, the enforcement of laws on early marriage remains generally weak and characterized by non-responsiveness of the justice system. Worse still, paralegals and non-qualified legal practitioners often encourage parents to opt for cash or in-kind out of court settlement when dealing with defilers.

Evidence from the field further reveals that at school level, teachers have not been adequately facilitated to deliver on their duties. Major setbacks include the poor classification of 'hard to reach' and 'hard to stay areas', the non-payment of hard to reach allowances, and inadequate housing, which coupled with topography and unconducive weather conditions, were reported as the major reasons for teacher absenteeism and late coming. Out of the 90 public primary schools in Bududa, only 8 appear to be served with teacher housing, yet more than 30 per cent of schools are in hard to reach and hard to stay areas.

Teacher absenteeism is further fuelled by inadequacy of school inspection due to staffing gaps in the inspectorate and lack of funds. To address this shortcoming, government officials in Bukwo district have attempted to utilize lower local government structures for school inspection. Notably, institutional gaps and communication challenges (e.g. lack of verbal or written feedback from inspection activities) between these lower local government structures at sub-county level and the district inspectorate pose seemingly unsurmountable hurdles.

FGD participants and KIIs in Bukwo also identified inefficiency of local administration at both district and school level as significant contributors to teacher as well as pupil absenteeism and demotivation. FGDs with teachers revealed that the criteria of appointments and promotion of teachers do not depend on experience and competencies, let alone performance. District education officers and a number of headteachers further reported that many of the teachers recruited in the district were incompetent and accorded more time to business in neighbouring Kenya than to teaching. Such practices foster negative attitudes towards education, thereby discouraging parents from sending children to school. In the words of an FGD participant:

> Even children who go to school on a daily basis end up failing because they are not taught, when we report to the district no action is taken, so what is the use of sending a child to school every day? They would rather help in generating additional household income as well as save us the cost of school feeding with no returns.

For Bukwo specifically, the need to audit and review teacher appointments as well as evaluate teacher training college standards was indicated as a high priority. Similar concerns were raised with regards to school management committees in terms of their technical competence and ability to hold stakeholders accountable for poor educational outcomes.

Concluding remarks

The monitoring framework presented in this chapter provides an innovative approach linking public investments to sector outcomes (e.g. completion rates) with a view to identifying intra- and inter-sectoral efficiency gains across different geographic areas. The three case studies from the education

sector presented above revealed that regional differences in performance may not only be a result of inadequate allocations. Other factors, including local government leadership and accountability mechanisms, as well as sector-specific and complementary investments such as targeted social protection interventions and/or context-specific measures, are equally important. In terms of policy and impact, each case study avails a clear and rich set of policy recommendations encompassing high-level, policy-related interventions, as well as localized context-specific measures to achieve better outcomes.

While this analysis has largely focused on the education sector, the main objective of this chapter was to showcase the analytical framework embedded in the Atlas as an effective platform to draw a clearer link in the results chain between funding and outcomes. This effort is expected to enhance the government's efforts to monitor the effective delivery of basic social services affecting children, as well as inform evidence-based discussions on how to utilize limited resources more effectively to achieve better social outcomes.

Notes

1. <https://www.finance.go.ug/mofped/budget-monitoring-and-accountability-unit>
2. The Uganda Equity Atlas via <https://ugatlas.onalabs.org/>.
3. <https://budget.go.ug/>
4. <https://databank.worldbank.org/data/source/world-development-indicators>
5. <http://datatopics.worldbank.org/sdi/>
6. On inspection, it is interesting to note that district officials interviewed during field visits in Moroto reported that overall inspection releases do not take into consideration the terrain surrounding many schools, as well as various limitations in the district means of transport, which inflate the cost of inspection and limit the frequency with which inspection visits can be performed.
7. U-Report is a UNICEF free SMS-based system that allows young Ugandans to speak out on what is happening in communities across the country, and work together with other community leaders for positive change: http://www.ureport.ug

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About the authors

Diego Angemi is the Chief of Social Policy and Advocacy at UNICEF Uganda. He is an economist with over 15 years of diverse experience in research and policy analysis. His areas of expertise include poverty and vulnerability analysis, and the design and implementation of national development plans, in addition to various aspects of public financial management (i.e. budget formulation, execution, monitoring, and reporting) and aid effectiveness.

Margaret Kakande is a development economist-cum-statistician, who established and is the Head of the Budget Monitoring and Accountability Unit in Uganda. She has spearheaded the Gender and Equity Budgeting initiative in government, which was awarded a National Golden Jubilee Award. She is a seasoned researcher, evaluator, and facilitator in areas of poverty, gender, and budgets.

Imran Aziz is a staff member at the International Monetary Fund.

Darlington Senoga is an economist, senior-level manager, monitoring and evaluation specialist, data analyst, and computer application developer with over 10 years of experience in these specialities. He has served as a lead monitoring and evaluation officer, programmer, data analyst, and administrator for various projects in both the private and public sector.

Sheila Depio is a staff member at the Economic Policy Research Centre.

Amna Silim is an economist at UNICEF-Uganda.

CHAPTER 14

Children, disabilities, and poverty: Enforcing the human right to inclusive education in sub-Saharan Africa

Adam Dubin

Abstract

In sub-Saharan Africa, millions of children with disabilities are left out of educational opportunities. Although disability and poverty are strongly correlated, access to quality inclusive education can help reduce chronic poverty and improve economic and social well-being in the medium and long term for children with disabilities. Under international and regional human rights legislation, children with disabilities have a right to inclusive education that requires states to develop and implement policies to ensure fulfilment of this right. However, despite these legal obligations, many sub-Saharan African countries have failed to develop comprehensive and effective inclusive educational legislation and strategies. In the context of child poverty, education, and disability, this chapter analyses the challenges in sub-Saharan Africa for using the regional African Commission and Court on Human and People's Rights, as well as national legal systems, to provide access to justice for holding states accountable because of a failure to fulfil the Right to Inclusive Education for children with disabilities. The chapter has particular relevance because of the recent adoption of the Protocol to the African Charter on the Rights of Persons with Disabilities in Africa, which codifies inclusive education, and could provide an important legal tool for children with disabilities, and their families, to enforce their rights.

Keywords: disability, human rights, inclusive education, pan-African, legislation

Introduction

Having a disability is a significant driver of poverty and lower levels of economic and social well-being. People with disabilities lag behind people without disabilities in every Sustainable Development Goal indicator (UN, 2018). This is particularly true for children with disabilities in developing countries, who are often unable to access schooling and other educational resources that may

contribute to a trajectory out of poverty. Despite a strong international legal framework providing protection for children with disabilities and a recognition of the positive relationship between education and poverty for persons with disabilities, the development agenda has only given minimal attention to advancing disability rights. States have an obligation to develop and implement inclusive educational policies in accordance with the Convention on the Rights of the Child (CRC) (UN, 1989), the Convention on the Rights of People with Disabilities (CRPD) (UN, 2006), and other international, regional, and national frameworks. Ultimately, this is in order to integrate children with disabilities into mainstream schools and combat prejudices, and other social mores, which limit their future socio-economic potential. With the passage of the Protocol to the African Charter on the Rights of People with Disabilities in Africa (African Union Commission, 2018) in January 2018, children with disabilities and their families now have an important regional legal tool to enforce their right to inclusive education against states which fail to fulfil the obligation of this right.

Because of the lack of data available, there is no clear estimate in sub-Saharan Africa of the number of children with disabilities, but the World Health Organization estimates that between 10-15% of school aged children have some form of disability (University of Leiden, 2018). According to the World Bank (McClain-Nhlapomark et al., 2018), only 10 per cent of these children with disabilities receive any type of schooling. Equally troubling, children with disabilities in sub-Saharan Africa are three times less likely to complete primary education (McClain-Nhlapomark et al., 2018).

Children with disabilities are left out of educational opportunities for multiple reasons, including stigmatization, traditional mores, lack of financial resources, few specialized schools, and limited teaching professionals. The consequences of low levels of education are well established in development literature as impacting overall economic and social well-being and contributing to chronic poverty. Research shows that having a disability is a driver of chronic poverty, especially in sub-Saharan Africa, where evidence demonstrates lower levels of employability, school attendance rates, reduced health care access, and overall lower levels of economic well-being for people with disabilities (Rohwereder, 2015).

Recognizing the inextricable link between poverty and disability, this chapter analyses the judicial and legislative challenges across Africa in recognizing the human right to inclusive education for children with disabilities and explores methods for ensuring its fulfilment. Through a discussion of the African Commission and Court of Human and People's Rights, as well as state human rights mechanisms, the chapter explores the steps necessary to ensure the right to inclusive education is fulfilled by empowering children, and families of children with disabilities, to use judicial and legislative instruments in order to enforce their rights, and improve economic and social well-being.

The chapter begins with a discussion about the intersection between poverty, education, and disability. It then shifts to an overview of inclusive

education as a human right and then analyses the legislative and juridical limitations of enforcing inclusive education rights throughout Africa. It concludes with a discussion about a number of best practices taking place in Kenya, Zambia, and South Africa.

Poverty, education, and disability in sub-Saharan Africa

Having a disability is a significant driver of the multidimensionality of chronic poverty caused by social exclusion and other forms of marginalization, income loss, and, particularly in sub-Saharan Africa, a compounding of weak institutions, limited resources, and already high levels of poverty. It is well established in the development literature that poor health and poverty are positively correlated and intersected. Oyaro (2015: 352) notes, 'a majority of persons with disabilities in Africa live in dire conditions … As such, poverty is not merely a challenge for persons with disabilities but may also exacerbate their respective maladies'.

The reasons for the positive correlation between poverty and disability are often due to an 'adverse impact' on education, employment, earnings, and increased expenditure in relation to the disability. Palmer (2011: 212) argues that disability and poverty are closely linked and that disability can 'restrict a person's capabilities in various ways'. He cites a study in India which shows that in Tamil Nadu the illiteracy rate of persons with disabilities is four times higher than persons without disabilities and another in Uganda demonstrating that disabled householders were more likely to have mud floors, use wood for cooking, and have less access to tap water and flush toilets.

Disabilities create added economic strains on already poor families that often make it impossible for children with disabilities to obtain education, contributing to continued cycles of poverty. According to a World Bank study (Patrinos, 2015), primary education in Africa has a significant impact on positive social and economic change and is associated with reductions in adult poverty. A study by Wolfe and Haveman (2002) found 19 non-market benefits of education, such as better health for oneself and one's family and more efficiency in decision-making. In another study by Nores and Barnett (2010: 272, 279) of early intervention in 23 developing countries, educational interventions at an early age were found to have a large cognitive effect on children's development, emphasizing the importance of educational attainment for long-term gain.

The cost of non-education of children with disabilities therefore leads to reduced economic opportunities and a higher likelihood of chronic, long-term poverty both for the non-educated child as an adult and for the family which will have greater care taking and financial responsibilities towards the dependent child (Saebønes et al., 2015). For example, a study by UNICEF (Malungo et al., 2018) in Zambia highlighted parents who complained of not being able to pay transport fees to send their children to specialized schools or cover the associated costs of these schools. Similar to many states in sub-Saharan Africa, the gap between people with disabilities who never attended

any school versus people without disabilities who never attended school is as much as 25 percentage points in Zambia, demonstrating the educational inaccessibility or abandonment of much of this demographic, particularly those who are poor. A study by UNESCO (2017) found that in Uganda, adolescents with disabilities are twice as likely to be out of school as adolescents without disabilities.

Alternatively, when investment is made in education for children with disabilities, this is positively correlated with improved economic well-being. It helps to alleviate some of the indirect costs associated with having a disability, such as lower long-term productivity loss. For example, Lamichhane (2015) argues that the returns on educational investment for people with disabilities can be as high as 26 per cent. Another study echoes a similar sentiment, stating that:

> Educating children with disabilities reduces welfare costs and future dependence; releases other household members from caring responsibilities, allowing them to engage in employment and other productive activities; and increases children's potential productivity and wealth creation which in turn helps to alleviate poverty (Saebønes et al., 2015: 4).

International legislative human rights framework of inclusive education

UNESCO defines inclusive education as an approach by which policymakers and managers focus on the barriers and their causes within the education system to determine how they can be removed. This may include accessible classrooms, specialized teachers, sensitivity trainings, and appropriate curriculums. Its end goal is to eliminate social exclusion of people with disabilities and provide an education system where all children regardless of disability learn together in an inclusive environment, recognizing the importance of peer environments towards learning and de-stigmatization. Tosi et al. (2016: 137) note that, 'Inclusive education is a process that permits a responsiveness to educational diversity, allowing for their active participation in school and society, reducing social exclusion both within and outside the classroom'.

Inclusive education, notes Dreyer, 'has its roots in the disability movement' (2017: 385). The Universal Declaration of Human Rights (1948: Article 25), the first in a series of rights documents, requires states to ensure an adequate standard of living and security in the event of disability. The subsequent International Covenants in 1969 specifically point to equality as a transversal element of all other rights contained in these frameworks, including the Right to Education.

The concept of inclusive education is relatively new. Countries such as the USA and European countries first entered the debate about inclusive education in the early 1970s for many of the same reasons why inclusive education would be warranted in sub-Saharan Africa. First, there was the recognition that segregation of people with disabilities can be harmful and that one way

to fight against prejudice is through a more inclusive educational approach. Also, that students with disabilities, with the right support, learned better along with their peers than in isolated, segregated classrooms or schools. Finally, inclusive education was introduced partly as a cost-effective consideration in comparison with having to build new schools or train a new set of teachers, which is partly what makes it important to implement in sub-Saharan Africa to expand access for children with disabilities. Numerous studies have pointed to the cost effectiveness of inclusive education as a means of guaranteeing education to children with disabilities. As a study by researchers at the University of Cambridge notes, 'the desire to place pupils in mainstream classes rather than special schools was driven, in part, by the Treasury's desire to reduce [education] costs' (MacBeath et al., 2006).

In 1994, 92 governments and other organizations came together in Salamanca, Spain to develop a declaratory legal framework to expand quality educational access for children with special needs. The outcome of the meeting was the Salamanca Statement and Framework for Action on Special Needs Education, which helped bring inclusive education to the forefront of the disability and education dialogue, and culminated with its codification as a human right under Article 24(2) of the CRPD, which provides this definition of inclusive education:

> *The fundamental principle of an inclusive school is that all children should learn together, wherever possible, regardless of any difficulties or differences they may have. Inclusive schools must recognize and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use, and partnerships with their communities. There should be a continuum of support and services to match the continuum of special needs encountered at every school (Statement Paragraph 7).*

Non-African regional treaties, as well, have incorporated inclusive education and non-discrimination measures into their human rights frameworks. In Europe, for example, Article 26 of the European Union Charter of Fundamental Rights includes an obligation to integrate, protect, and support persons with disabilities, and the European Pillars of Social Rights also specifically recognize inclusive education. In the Americas, Article III of the Inter-American Convention on the Elimination of All Forms of Discrimination Against People with Disabilities specifically calls on states to develop legislation and other measures to ensure the integration of people with disabilities and develop educational campaigns towards greater coexistence with people with disabilities.

Inclusive educational legislative framework in sub-Saharan Africa

The African Union has only recently made disability rights a priority of its human rights and development agendas. The work of African states towards improving inclusive education has largely happened without support from

the pan-African institutions and has led to mixed results. A 2013 study across five African countries found that while some states had adequate policies on inclusive education, implementation was lacking, ranging from lack of teacher preparedness to non-accessibility of schools (Tchombe, 2017).

The African frameworks for development have scarcely recognized persons with disabilities as fundamental to achieving broader development goals, despite their recognition in multiple Sustainable Development Goals, including in Goal 4, which calls for inclusive education for children with disabilities. Under the Agenda 2063: The Africa We Want, there is no reference to disability despite the importance given to other collectives such as women and refugees. Similarly, in the Common Africa Position on the Post-2015 Development Agenda, there is brief reference to ensuring the rights of people with disabilities, but no reference to their inclusive education despite fairly lengthy discussions on educational advancements across Africa (Lang et al., 2017).

There are a number of educational frameworks within Africa that have paid more attention to advancing the educational rights of children with disabilities. In the Continental Plan of Action for the African Decade of Persons with Disabilities 2010–2019, inclusive education is one of the identified priority areas. In addition, the African Union developed the 2016–2025 Continental Education Strategy for Africa, which provides a broad swathe of priorities across Africa to advance education at all levels, from primary to higher education. Among its priorities is inclusive education, and a recognition that despite economic growth, persons with disabilities and other disadvantaged groups have been left out of many economic and social opportunities across Africa. However, the document contains minimal concrete policy to support state initiatives for developing inclusive education, nor is there a financial or technical commitment towards broader inclusive educational initiatives across the region; the responsibility has fallen primarily on states to develop inclusive educational policies, with external support coming mainly from international institutions.

The most important advance in protecting the rights of persons with disabilities in Africa, and supporting a regional right to inclusive education which could be enforceable at both the pan-African and individual state level, is the Protocol to the African Charter on the Rights of Persons with Disabilities in Africa. This was adopted in January 2018 through the work of the African Commission's Working Group on Older Persons and Persons with Disabilities (ACHPR, 2007) in response to the Kigali Declaration of 2003 that called on member states to develop a Protocol on the protection of persons with disabilities. Article 16(3) of the Protocol calls on states to take 'effective measures to ensure that inclusive quality educations and skills training for persons with disabilities is realized fully…' (African Union Commission, 2018: 11). This document, at least in theory, expands access to justice to people with disabilities across Africa who can now rely on this document as the legal basis for claims against states that fail to enforce disability rights.

As a point of comparison, both the European Union and the Council of Europe, which have achieved significant gains in inclusive education, have put in place both the policy framework and an accompanying institutional framework to advance education for children with disabilities. As will be discussed later, through the jurisprudence of the European Court of Human Rights, disability rights have formed an important part of the Court's case law and have created obligations on states to enforce rights ranging from accommodations to inclusive education in schools.

The European Union has also adopted a comprehensive framework for advancing the rights of persons with disabilities. Under the 2017 European Pillars of Social Rights, the first principle guarantees inclusive education and, under the European 2020 Strategy, Europe specifically sets targets for inclusive educational attainment which is monitored through the European Union's Education and Training Monitor. The African Union's strategies have lacked both firm commitments and the necessary coordinating and monitoring mechanisms to advance inclusive education.

In addition, through a joint project by the European Commission and the Ministries of Education of the individual states, there is a Europe-wide coordinating mechanism to advance education for children with disabilities. This is the European Agency for Special Needs and Inclusive Education that works with individual states to implement inclusive policies and legislation. There is no Africa-wide equivalent to advance the needs of persons with disabilities and, furthermore, the role of the African Union has largely been about harmonizing and coordinating policies, compared with the European Union which is primarily a law-making body. This top down approach in Europe has led to important initiatives through Europe, ranging from training teachers on providing a supportive and integrated classroom, to online databases, to funds for additional teacher support. Over time, enrolment rates across Europe for children with disabilities have increased to approximately 97 per cent in inclusive education.

Pan-African and domestic legal institutions to advance education for children with disabilities

Judicial institutions to enforce educational rights

Legal institutions and access to justice form an important component in maintaining state accountability and ensuring the enforcement of legal frameworks when states fail to meet their obligations to provide educational access to children with disabilities. With the adoption of the African Protocol, there is an important opportunity for the greater enforcement of disability and inclusive education rights across and within African countries.

Unfortunately, unlike in Europe and in the Americas through the Inter-American human rights system, there is far less utilization overall of the pan-African judicial institutions to enforce rights. The Working Group on the

Rights of Older People and Persons with Disabilities of the African Commission on Human and People's Rights does not have an adjudicative function to hear or investigate violations of the rights of disabled people. Its primary function, according to mandate, is to brainstorm, research, collect data, and report to the African Commission (Working Group: African Commission on Human and People's Rights).

Compared with the Inter-American system and the European human rights system, the African human rights system is severely underused and is missing an opportunity to develop important jurisprudence across Africa promoting the socio-economic rights of people with disabilities and providing a legal remedy for those seeking rights enforcement.

Although the Protocol to the African Charter on Human and People's Rights on the Establishment of the African Court on Human and People's Rights has not been signed and ratified by all African countries, the African Charter on Human and People's Rights (OAU, 1981), which provides for the right of an individual to submit a communication against a member state to the Commission, has been signed and ratified by all countries except for South Sudan. To date, the only case to come to the African Commission concerning disability rights was in 2003 involving The Gambia (ACHPR, 2003). Otherwise, neither the Commission through its adjudicative function, nor the African Court on Human and People's Rights have heard cases involving disability rights. This suggests that basic access to justice is severely lacking across the continent, especially when compared with other regional institutions such as the European Court, which receives upwards of 60,000 cases each year, many involving disability and education rights (ECHR, 2019: 6). This has permitted the development by the Court of a rich body of jurisprudence and disability guides to aid litigation in domestic contexts. For example, the European Court of Human Rights recently decided a case on inclusive education in Turkey, ruling that inclusive education extended up through university level (ECHR, 2008). This has implications beyond the borders of Turkey and enhances disability rights throughout the Council of Europe. African states need to re-evaluate their commitment to the functioning of this Commission and ensure that justice remains within reach.

Challenges at the African state level

At the domestic level, access to justice for people with disabilities is also challenging. Post-colonial legislation concerning disability and education requires reform in order to broaden rights. Some of the individual state legislation is ambiguous and without any tangible efforts to strengthen the rights of people with disabilities, especially children who seek to exercise their right to education.

In the Tanzanian National Education Act of 1978, for example, there is no mention of inclusive education or children with disabilities. The Tanzanian Disability Act of 2010 offers a short section on education and guarantees that

children with disabilities can go to an 'ordinary school' but without clarifying the mechanisms to ensure compliance or the strategy to push forward these laws. This is also true, for example, of the Ugandan Education Act of 2008 (GoU, 2008), along with the Ugandan Disabilities Act 2006 (GoU, 2006), which focus primarily on the elimination of discrimination without explicit support for structural mechanisms to achieve non-discrimination. In addition, clarification is needed on certain ambiguous terms in many of these acts. For example, the Disabilities Act of Sierra Leone 2011 specifies that all schools should have facilities for people with disabilities, but it is not clear from the language if this refers specifically to inclusive education. Similarly, the Ugandan Education Act 2008 (GoU, 2008) makes mention of 'disability friendly schools', but without clarifying to what this refers.

Even where good laws do exist, other structural and institutional challenges persist that make it difficult to access justice. For example, there is ample evidence of families who simply had no knowledge about how to use the legal system to enforce educational or other disability rights or, where they did, the justice system – judges, lawyers, and court officers – did not have the proper training or sensitization to provide adequate access to justice. In South Africa, for example, 'the lack of political knowledge, will or coordination … directly translates into an absence of political impetus to destigmatize mental health, regardless of the legal obligations and policy commitments to do so' (Mahomed and Stein, 2017: 72). In addition, court and government infrastructure, for example, as reported in Malawi, is often not physically accessible to persons with disabilities, which is a violation of the CRPD and, according to one author, 'takes away the dignity of the person who is physically challenged who has to be carried to access the buildings of the court' (Malunga et al., 2017: 34).

Desegregated data for policy and legislative development

Efforts to expand child educational disability rights are also hindered by a lack of desegregated data concerning the number of children with disabilities in African countries in order to be able to develop policy accordingly. In addition, birth registration throughout Africa remains a problem, leading to many children with disabilities who have never been registered to receive social protection or other assistance.

The impetus for collecting this data is not only for better policy-making, but also falls under the international and regional human rights frameworks about people with disabilities. Under Article 4 of the CRC, states are obligated to develop effective legislative, policy, and other measures. This obligation is elaborated on in General Comment 19, which calls on states to collect data and develop effective and transparent budgeting for child rights. Article 32 of the African Protocol also emphasizes a similar obligation, noting that states must 'ensure the systematic collection, analysis, storage and dissemination of national statistics and data covering disability…' (African Union Commission,

2018). According to a United Nations (UNSD, 2001: 5) workshop report on disability statistics in Africa, the 'lack of accurate statistics about disability continues to obscure the situation'. The report continues by saying that 'collecting policy relevant data on these and other special population groups, including children … would provide policy makers with the data necessary to formulate policy and develop programmes aimed at addressing the needs of persons concerned' (UNSD, 2001: 8).

Nearly every study consulted for this chapter makes mention of the poor state of data or limited availability of data concerning persons with disabilities. Desegregated data is needed about children with disabilities in rural and urban areas, particularly in informal settlements, as well as the different types of disabilities among the population in accordance with World Health International Classification of Functioning, Disability and Health (ICF). Some countries, such as Tanzania, have conducted country-wide disability surveys (GoT, 2008) through their Bureau of Statistics, but many of these surveys are either outdated or do not included desegregated data about disability types. Demographic and household surveys, which are conducted in most African countries, present an opportunity to integrate disability data into these broader surveys. According to one study, only 29 African countries collect data on children with disabilities in schools and only 12 countries have desegregated data by disability type (Wodon et al., 2018).

In addition to collecting data, African states must do more to supervise the implementation and monitoring of educational policy for children with disabilities. The United Nations, in an assessment of global disability rights, specifically calls on states to develop monitoring mechanisms and institutions to oversee a correct and effective implementation of rights. In Kenya (MoE, 2009), for example, disability legislation requires the state to develop a comprehensive monitoring framework and, in conjunction with stakeholders, review the law every five years.

Advances in inclusive education in sub-Saharan Africa

Despite these challenges, some sub-Saharan African countries have begun to shift towards the introduction and implementation of inclusive education policies in line with human rights and constitutional mandates. This section briefly reviews some of the approaches by sub-Saharan African countries in improving inclusive education programmes.

Kenya presents an important case study because of its legislative commitment to advancing the rights of disabled children through the passage of the Special Educations Needs Policy of 2009, which provides a comprehensive policy on a broad range of initiatives for special education, including inclusive education policies, awareness campaigns, and gender mainstreaming. What differentiates this law from many others across Africa is that it includes for each section a set of strategies for achieving these policy initiatives, as well as a comprehensive strategy for monitoring implementation.

In addition, under the Education Act of 2013, Kenya inaugurated the Institute of Special Education, which has as one of its priorities inclusive education (GoK, 2013). In 2018, it launched a special three-day forum for mainstream teachers on inclusive education, with a comprehensive programme ranging from introducing the philosophy of inclusive education to developing competences of professors in assisting children with disabilities.

Another example of advances in inclusive education comes from South Africa, which in 2001 launched inclusive education with the publication of a white paper on the issue that argued for a conceptual shift in learning. Soon after, the Government of South Africa launched an initiative called Universal Design for Learning (UDL) to train public school teachers to develop curriculums that can be useful to students with different capabilities and disabilities, including children with and without disabilities. A study by the *African Journal of Disability* found that investment in training of inclusive education and UDL had positive outcomes on the teachers who attended and that teachers demonstrated an improved ability to develop more universally oriented teaching curriculums (Dalton et al., 2012).

As a final example, in 2011 the Government of Zambia launched an inclusive education pilot programme for blind children. The programme had two main strategies towards the goal of improving inclusive educational access: strengthen coordination between the federal government and the districts and provide training and awareness campaigns for educators and communities. A recent evaluation by an external consulting company found that the programme exceeded most of its goals, including enrolling more children than stated in its original goal. According to the report, this was accomplished through developing district leadership officials, who received specialized training in inclusive education policy, as well as developing synergies with pre-existing district education programmes to expand access for children with blindness (Malungo et al., 2018).

Conclusion

The human rights framework for inclusive education provides a starting point for the duty bearing state and serves as a broad blueprint for them to begin developing inclusive education programming. However, the African Union needs to bring inclusive education to the forefront of its education policies and match it with technical and financial support towards the harmonization of disability laws and towards greater implementation of these laws at the domestic levels.

In addition, the African Commission and Court on Human and People's Rights are missing an important opportunity to take the lead on creating jurisprudence across Africa on child disability rights. There needs to be a greater commitment by states and the institutions themselves to ensuring and advancing access to justice and the enforcement of what is a comprehensive international and pan-African rights framework on people with disabilities.

Lastly, international organizations must support the work of individual states to develop comprehensive data and monitoring mechanisms on children with disabilities. As stated earlier, data is near non-existent in many African states, and the data that does exist is often desegregated and unreliable for the purpose of policy-making.

Inclusive education is still at a starting point across Africa, as it is in many parts of the globe, but it provides an important vehicle for helping to reduce poverty levels among people with disabilities. With the recent passage of the African Protocol, there is an important opportunity for African countries to harmonize their laws, share best practice, and begin implementing important changes to their educational systems in order to adequately integrate children with disabilities and ensure access to good quality education.

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About the author

Adam Dubin is an Assistant Professor of Human Rights Law at Universidad Pontificia Comillas, Spain and an Adjunct Professor of Law and Development at New York University (Madrid Campus).

Ensuring children's social protection in the Democratic Republic of the Congo: A case study of combating child labour in the copper-cobalt belt

Bonfils Cheruga, Rebecca Liron, and Mark Canavera

Abstract

This chapter explores determinants of children's involvement in artisanal and small-scale mining in Kolwezi, Democratic Republic of the Congo. Based on research conducted in late 2017 in areas dominated by cobalt and copper mining, the study revealed that children readily worked in artisanal mining, which posed a variety of risks, including physical harms, health impacts, school dropout, and sexual exploitation, especially for girls. The study also explores community-embedded social protection mechanisms to mitigate or remediate these harms, which spanned economic, social, educational, and spiritual domains.

Keywords: artisanal and small-scale mining, Democratic Republic of the Congo, community-led child protection

Introduction

Who is responsible for social protection – especially for vulnerable citizens, such as children and young people – in a place where wildfire, unregulated extractive industries ravage an entire region without provoking so much as a 'squeak' from the local and regional government officials? This question is not a hypothetical one in the Kolwezi area of the Democratic Republic of the Congo, where the pursuit of subterranean copper and cobalt has become a collective goal for families, communities, companies, and the government. Extractive industries are not inherently worse than other industries and can serve as important motors for economic development; nonetheless, they require careful monitoring and regulation to ensure that the earth's mineral bounty is unearthed in a way that contributes to local development and ensures social protection for all community members. Such monitoring and

regulation are simply not in evidence in Kolwezi, a town that welcomes visitors with a statue of a CAT tractor in the town's central roundabout.

This chapter draws upon empirical work conducted in 2017 to understand the risks that children and families face and the protective factors that they make use of in the Kolwezi area. After laying out the tectonic shifts in the local economy that have occurred in the past decades, it will explore how these changes have impacted the protection of children and the well-being of families and communities. We highlight the community assets that local citizens identified as potential sources of comfort and protection for children and families. Using examples from the Good Shepherd International Foundation, we highlight how efforts can be made to build upon these community assets in restoring a human-centred approach to social protection in a region whose fate seems ineluctably tied to global mineral markets. If these efforts are, by necessity, small-scale, they are also vital in that they can offer an alternative view of the future. While many citizens in the region openly wonder, 'What will there be after the mines?', localized efforts to create social protection schemes that uphold children's rights and support families in alternative livelihoods endeavours are crucial in helping community members to envision and work towards a better future.

History and context of the region

The Democratic Republic of the Congo (DRC) possesses vast natural wealth: a diversity of minerals, oil, and forests covers almost all provinces of the country. Unfortunately, the majority of the population draws no lasting benefit from these natural resources. On the contrary, mining activities are accompanied by numerous and serious human rights abuses. The province of Lualaba, whose capital is Kolwezi (population 850,000), is an area where the exploitation of the natural environment goes hand-in-hand with violations of human rights, including children's rights.

Over half of the world's cobalt is mined in the Democratic Republic of the Congo before it is sent primarily to China to be refined for use in batteries. Much of that cobalt – as well as a host of other minerals – is mined in Lualaba Province. The mines rule life in Kolwezi; who governs the mines governs life. The country's civil wars and conflicts of the 1990s and early 2000s led to a decline in industrial mining while the artisanal, informal, and unreported mining continued to flourish – commonly called 'artisanal and small-scale mining' (ASM). To make investments more attractive and viable in this sector, the Government of the DRC adopted and promulgated a new Mining Code no. 007/2002 on 11 July 2002, a code that thankfully was updated in 2018 to ensure additional community and worker protections.

In the vicinity of the former industrial mining sites, ASM sites surfaced. In the wake of the fall of Gécamines (the state-led mine) – and with few industrial mining companies having come to fill its place – many household economies in the area came to rotate around the manual (or 'artisanal') extraction

and processing of copper and cobalt, ahead of sale to so-called négociants, or purchasers. Although industry representatives are quick to point out that ASM accounts for only 20 per cent of the copper and cobalt exported from the DRC, local citizens suggest that ASM is increasing by the day. ASM attracts adult labour from most households in the area as there are few, or no, other economic outlets. In the absence of other possible employment options and given the illegal nature of most of the ASM extraction activity, artisanal miners all partake in a highly exploitative sector – they are all part and parcel of a race to the bottom, where their hard work is remunerated by just a few dollars per week. Purchasers are able to shift all of the risk from potential hazards to small-scale miners, who undertake the work without insurance, safety or security measures, guaranteed income, or other basic workers' rights that should be guaranteed (Rubbers, 2018). It is, in many ways, an Uber model of mining in which companies make agreements with the government to secure unique purchasing rights without ever engaging citizens as workers (Nkulu et al., 2018).

Children tend to reproduce the parental model; they follow their parents to work in the mines from a young age, starting as young as six or seven years old. Similarly, orphans and children with a single parent engage in artisanal mining, finding no other way to fend for themselves. With ASM being so predominant and in the absence of valid alternative livelihoods and an affordable education system, families are trapped in a vicious cycle of poverty, with children standing out as the most vulnerable. Community members highlight that the mines and quarries are their life source but also fraught with physical danger from landslides and mine collapses.

Artisanal mining in sub-Saharan Africa

Artisanal mining in sub-Saharan Africa and related child labour has been addressed in the academic literature, although studies that approach artisanal mining through a child protection and child well-being lens remain embryonic. A body of literature (Hilson, 2008) has examined ASM, and its effects on communities have begun to emerge, often highlighting the ways in which ASM serves to undermine social protection for families and communities, at the same time that private industry and governments employ a discourse of local empowerment and economic development. These critiques are in line with a wider body of literature that calls for the centrality of local knowledge and genuine community-driven work to lie at the heart of community and national development (Hilson, 2008).

The literature suggests that reducing child labour in ASM via international laws and policies, for example those applied in Asia, have been ineffective in sub-Saharan Africa. This inability to transfer policies that worked in one region to another results from the lack of understanding of factors unique to sub-Saharan Africa, such as the levels of poverty in certain contexts (Hilson, 2008) as well as governance arrangements. Scholars emphasize the need to

further investigate the importance of those in power politically and econom-ically to better understand the context and dynamics of 'ASM communi-ties'. Moreover, research suggests that the ad hoc nature of ASM regulations and divergent governance arrangements among countries and localities in sub-Saharan Africa are one cause of the ineffectiveness of these regulations, permitting the flourishing of harmful child labour. For example, the act of becoming licensed to be an artisanal miner in sub-Saharan Africa may be extremely difficult for individuals in contexts of systemic oppression and poverty. A gap in the literature on the informal practices of miners in sub-Sa-haran Africa translates into a disjuncture between policies and practice for countries and communities in the region where ASM predominates (Hilson, 2009).

The small body of research that examines the impacts of child labour on children's health, development, and well-being notes the deleterious effects of mining on children in sub-Saharan Africa. For example, in northern Nigeria, childhood deaths due to acute lead poisoning occurred in a com-munity and surrounding villages where there was artisanal gold mining. This example illustrates the negative health and environmental effects that ASM has on adults and children in mining communities, calling for safer mining practices (Dooyema et al., 2010). Much research likewise reiterates the well-documented potential for safeguarding in ASM communities in sub-Saharan Africa. However, much of the existing literature and applied rhetoric does not take into account many of the social and economic factors that affect those living in and drawing their livelihoods from ASM commu-nities in sub-Saharan Africa (Maconachie and Hilson, 2011). This oversight means that many policies and economic endeavours fail to address struc-tural factors such as conflict, destruction, violence, and injury in mining regions. Nonetheless, there is a movement towards putting regulations and laws in place to protect communities affected by ASM. This 'upward adjust-ment' rightly emanates from national governments across sub-Saharan Africa, but the benefits of these improved policies and regulations have not yet reached people in communities affected by ASM (Coyle, 2015).

Theoretical and methodological approach

This chapter seeks to fill the gaps in the literature on understanding the nuances of the lives of those in ASM communities in sub-Saharan Africa, exploring the determinants of children's involvement in artisanal and small-scale mining in Kolwezi DRC while also identifying community-based and community-embedded mechanisms that may serve as protective factors (Wessells, 2015).

Specifically, by focusing on the activities of one leading child protection non-governmental organization (NGO) working in the region, we also high-light community recommendations for ensuring social protection, commu-nity development, and the promotion of human rights, including women's rights and children's rights (Seay, 2013). First, we examine factors that put

children and families at risk of exploitation. We seek to understand how the community perceives risks and child development. Second, we examine locally driven child protection mechanisms and the extent to which communities feel ownership of them. We ask what child protection mechanisms are provided for by the government and how the community perceives these government mechanisms. A final guiding question was how child protection, social protection, and other programmes can most effectively contribute to mitigating child protection-related risks and to strengthening the existing protective mechanisms, using an assets- and strengths-based approach.

This qualitative study was carried out in the proximity of mining sites (particularly the Kanina neighbourhood in the Domaine Marial area) of Kolwezi, Lualaba, in late 2017. The study methodology incorporated mechanisms of building trust and relationships with the community, via the Good Shepherd Sisters, identified as best practice by Zandvliet and Anderson (2009). The research team collected data in late October and early November 2017 using rapid ethnographic approaches such as participatory ranking exercises and in-depth interviews with an emic framework.

The research team members identified 90 respondents purposively, and respondents represented the following focal groups (see Table 15.1):

- government representatives, including both technocrats working in child protection and community development and politicians elected to public office;
- administrative authorities;
- workers in human rights or child protection-related non-governmental organizations;
- representatives of mining companies;
- community members participating in child protection programmes (adolescent boys and girls participating in the child protection programme; adolescent girls and young women participating in the economic empowerment programme; and members of the parents' committee for the informal school);
- community members not participating in programmes (women selected from the broader community; adolescent girls from the broader community; miners; and religious leaders);
- programme staff for the non-governmental organization (NGO) about which the case study was being conducted.

Table 15.1 Study participants disaggregated by sex and by age

	Men	Women	Adolescent boys	Adolescents girls	Total
Group discussions	27	20	6	19	72
Interviews	9	9	0	0	18
Subtotal	36	29	6	19	90

Results

The study demonstrated that children in this area remain extremely vulnerable to rights violations at different levels; these rights violations are undergirded by political, social, and environmental factors, buttressed by harmful and devolving social norms, and perpetuated by the lack of will of a variety of different stakeholders. The study identified harms that were more likely to occur to specific groups of children as well as mining-specific dangers that these children faced.

Although there is no clarity about the scale of the problem, all respondents agreed that children commonly work in the mines. 'There are lots of children in the mines', said one government representative both simply and nonchalantly. What are children known to do in the mines? With the mines and quarries so central to life in Kolwezi, it is no surprise that children come and go from the mines 'without really thinking about it', as one NGO worker put it. The roles that children are known to play include collecting and selling minerals. As one NGO worker said:

> On the other side [of that avenue], it's easier to find children who collect copper products and re-sell them to merchants. That kind of child lives in that reality … Sometimes when we go to the field, we ask children, 'What is that money going to help you with?' Sometimes children say, 'No, it will help me to pay for school supplies', especially during the month that children go back to school, but sometimes there are other children who are still there during the school year.

Which children end up in the mines and quarries? According to participants, the children who are likely to end up working in mines and quarries are already more vulnerable because of family situations than their peers who are not in the mines. One digger summarized:

> There are those who stay with their grandmothers, others who are orphans. Some come from divorced families, either the mother has remarried another man or the father has remarried another woman. This child will be chased out by his stepmother or stepfather. These are the children who become vagabonds; some of them will start going into the quarries in the evenings to make ends meet, to feed their grandmothers and others who are in the home. You'll hear that little children are in the quarries, but after a while, they'll start to look like big people, saying, 'Oh, I need some land [to dig]', or, 'I need this material'. He says that then the men are going to rape him because they've given him something. We don't know if they [these rapists] are demons or people.

The language used to describe children who take to the streets or who vagabond for lack of a solid family structure is 'shegués'. Another miner

explained simply that 'children are in the quarry because it is work that produces money'.

Community perceptions of factors that put children at risk

We asked community members to list and subsequently to rank the factors that contributed to children's lack of well-being. Table 15.2 shows these risk factors ranked by importance.

In addition to the four factors listed in Table 15.2, additional factors that were not ranked as highly included: children keeping bad company (such as other children who drink or smoke); parents' consumption of alcohol; parents' unemployment; bad education; and the lack of censorship in movies (see Figure 15.1).

Nearly every group discussion highlighted that broken families – most typically, families in which a father had left his first wife to establish a second family, with resulting kinship patterns spanning several forms of step-parenthood – were a root cause of child protection concerns. The treatment of children living with step-parents was commonly noted as the main protection concern, over issues such as having adequate food. One adolescent girl noted

Table 15.2 Top priority risks for children

Risk elements coming out of the discussion	Illustrative examples emerging from the group discussions
Death of parents	'In the old days, we cared for the whole family of deceased people, but lately we do not do it anymore. If we take on responsibility for family members, it is probably because of the goods that the deceased left, and then at a certain period of time [e.g. once the goods are used up], the [widow and children] are all accused of witchcraft, and they are thrown out'.
Quarries	Boys: 'When children enter the quarries to work there, the children take marijuana, then they penetrate to the in depths, It is necessary first that they take this and with all its effects in the body'. Girls: 'What is bad there is the presence of bars; hotels [where girls are sexually exploited] should not be in quarries. Scandal'.
Divorce in the family and subsequent child-rearing arrangements	'There was a dad who got married to a woman who had three children. When she gave birth to a child with him, he asked her to bring the other children back to their father. This dad needed the hitch [e.g. the woman] but not the trailer [the children she had come with].'
Poverty or hunger	Facilitator: 'We already discussed poverty, how could poverty also make children feel insecure or uncomfortable?' Adolescent: 'Because the child will see children of neighbours well-dressed and eating well all of that will make the child feel insecure!'

that children would prefer to eat inadequately while staying with their grand-parents, who treat them with love and respect, than to stay with step-parents who might feed them more but mistreat them. In one example, an adolescent girl said that some deceased parents would, as angels, pray from heaven for their children to join them there, rather than remain on earth where they would be mistreated by their new step-parents.

What do 'the mines' or 'the quarries' represent for community members? Community members highlighted that the mines and quarries are their life source, but most descriptions of the mines highlight their potential dangers and the ways in which they place the population at risk. The most obvious dangers of the mines that community members note were landslides and mine collapses, but there were many other cited dangers likely to affect women and children who work in and around mines. One example is given by a member of a school committee:

> *Me, I work in the artisanal quarry. I know the quarry. I don't like to see chil-dren in the quarries. There are many scandals there, little girls of 14 years old who are taken out of the neighbourhood to go to the little bars of the quarries. I ask why the State allows these hotels to exist; they should get rid of them. These hotel-bars bring difficulties to the quarries. Take a little girl, when a boy has already promised her money, he will go into the tunnels, the pits in the quarries, without taking the danger into account. If he dies, he dies. If he comes back, he comes back. What's bad is the presence of bars and hotels that should not be in the quarries. That's where the scandals happen!*

One interlocutor also commented:

> *You, young girl who likes to go in the mines, eeeeeh! [makes a sign of shame upon her face]. You can miss the chance of giving birth because that water in the quarries is dirty water. Maybe the water is somewhat deep, and you enter in it, and all of this is in the water [indicating all of the parts of the body that would be underwater, from thigh to hip]. Then a woman will be sick; she can even become infertile if that uranium penetrates her body too much. That's all.*

Adolescents' perceptions of risks and well-being in their community

Adolescents demonstrated various ideas about risk and well-being in their community that were collected via group discussions with two categories of children: adolescents participating in a community-based social protection programme being run by the Good Shepherd International Foundation, and adolescents from the broader community who were not necessarily partici-pants in the programme. The risk factors most frequently ranked the highest by adolescents were lack of schooling and dangers to children in mining quar-ries. Many respondents noted that everything that happens in the mining areas is antithetical to healthy development and protection: children who work in the mines learn to smoke, are rude, and earn money early, prompting
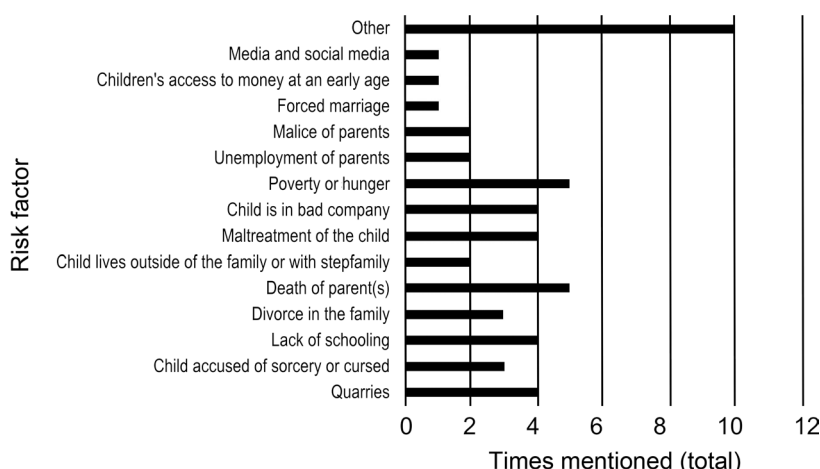
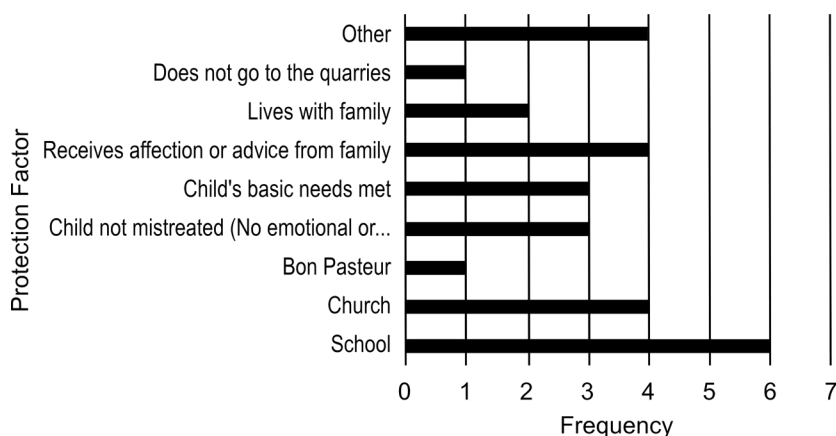**Figure 15.1** Risk factors mentioned in focus group discussions – all groups

them to disregard social norms and collective responsibilities. Young girls also experience sexual exploitation in the mines. Other risk factors mentioned by the adolescent groups included forced marriage, children accused of sorcery, and children in 'bad company'.

The adolescent participants thought that if a child keeps so-called 'bad company', he or she will also deviate as well, and 'bad company' represented the single biggest risk that they perceived to children's protection in the area (see Figure 15.2). Other key areas that this group of adolescents identified were irresponsible parenting, not being in school, and family poverty (lack of means). Two items that were listed but not ranked by these children were: 1) the heavy work that some parents ask their children to do; and 2) parents' 'wickedness', factors that cause children to flee their family homes for vagrancy.

What factors do community members perceive to protect the rights of children?

Social protection programmes that might demonstrate promise in a challenging context like this one will necessarily be multidimensional. We analysed a programme run by the Good Shepherd International Foundation that was called a 'child protection' programme but whose activities and features extended beyond the classic elements of 'child protection' (see also Figure 15.2). Some of the core components of this child protection programme are not typical of international humanitarian child protection programmes. Expansions beyond a classic 'child protection' framework include:

- a human rights framework that includes human rights monitoring, documentation, and awareness-raising, including children's rights (but not focused only on children's rights);

Figure 15.2 Protection factors mentioned in focus group discussions – all groups

- a sustainable livelihoods component that includes both alternative live-lihoods with an eye to food security (farming and animal husbandry) and skills development;
- the centrality of education and nutrition as core child-level interventions.

The strategy is coherent because of its holistic, human-centred nature, and therefore is able to engage the community through multiple outlets rather than simply through a child protection framing, which can alien-ate communities. Rather than treating women's protection and empower-ment or child protection as isolated work strands, removed from the daily concerns of community life, the strategy situates women's and children's protection and empowerment in a broader poverty reduction and gover-nance framework. By treating women's empowerment and child protection as interwoven with community development, the strategy stands a higher chance of being relevant than programmes that work on women's and chil-dren's issues in isolation. The governance and citizenship components of the strategy are crucial.

Parents in the community insisted on the need for basic child-rearing, which they say is the responsibility of the family. They think that children are more protected and spared violence if they are in a family setting where both parents are alive and in a good relationship. The child must grow up under the family roof because parents are the first educators through their advice. It is parents who refer children to certain sources where virtue is taught, including church and school. Some parents believe that the church and prayer are an important factor in protecting the family of which the child is a part. The best way to educate a child, they said, is to show her the door of the Church and privilege prayer, because they say that God is the great protector.

The women in the community also insisted on the family setting. For them, the Church is seen as a place where parents' advice and instructions received at school take place.

> *I can advise him that he starts going to church first, if on Sunday he goes to church, on Monday he comes to school, there we continue to advise him and what he is advised to do in church and at school is what will help him to be well.*

In addition, women in the community suggested that the quality of the parent-child relationship and their living conditions would help children in their education and protect them greatly in society. Overall, community members appear to understand that violations of children's rights in ASM are not likely to be fixed through programmes that work only on mining. Rather, social protection programmes will instead require clear and human-centred approaches that do not risk distancing communities, and where women's and children's protection and empowerment strategies must, as above, situate such protection and empowerment actions in a broader framework that accommodates poverty reduction, social protection, and good governance. Such an approach stands a much greater chance of success. At the activity level, weaving together education, livelihoods, and governance-focused work is likely to be necessary for reducing violations of children's rights.

Conclusion

The violation of the rights of the children living in Kolwezi on soil that is rich in minerals but deprived of many other core elements necessary for human life remains alarming. Ending this scourge will require multilevel interventions, including community-embedded development and protection work, but also the involvement of the international community, encouragement of political will among politicians and decision makers in the DRC, the involvement of mining companies in a serious and committed way, and ongoing community engagement in the development of comprehensive social protection schemes.

In an area where governance has deteriorated to the extent that scholars speak of state decay or even state failure, it is difficult to imagine what levers might be pulled to begin to change the situation. Some potential traction for change does seem to be emerging through exposés of child labour. For example, awareness raising amongst consumers of large battery products – such as electric cars, which require large amounts of cobalt – might induce them to think twice before purchasing an item whose supply chain seem to be connected to one of the worst forms of child labour.

Small but comprehensive programmes like the social protection programme for children and families run by the Good Shepherd Sisters – if they are designed and implemented well – could be a major contributor to a 'post-mine' landscape. Currently, the area's political and economic life is focused entirely on the mines, and programmes like the child protection programme

that is described create 'social protection' that operates well beyond the realm of economic realities. With its focus on human rights documentation and legal system strengthening, it is attacking state decay and state failure in a powerfully imaginative way: what can we change today so that we are contributing to the society we want to live in tomorrow? This is a 'demonstration project' in the most powerful way, demonstrating what social protection can look like when it weaves together the social, cultural, economic, and spiritual elements of the social fabric to create a new tapestry that represents an altogether different, and better, reality.

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About the authors

Bonfils Cheruga works as a research assistant at the Swiss Tropical and Public Health Institute in Bukavu, Democratic Republic of the Congo, having completed his medical degree three years ago. An expert in operational research for project implementation, he is currently studying at the Regional School of Public Health at the Catholic University of Bukavu.

Rebecca Liron is a researcher with the Care and Protection of Children (CPC) Learning Network and co-leads the Alliance for Child Protection in Humanitarian Action's Cash Task Force. She has worked in refugee resettlement and on child protection research in Côte d'Ivoire and the Democratic Republic of the Congo. Rebecca holds an MPH from Columbia University.

Mark Canavera directs the Care and Protection of Children (CPC) Learning Network, a research-practice collaborative housed at Columbia University, where he teaches international child protection. A practitioner-scholar with a special love for West Africa, Mark co-chairs the INSPIRE Working Group, which promotes evidence-based strategies to prevent and reduce violence against children, in collaboration with the World Health Organization.

The life of Ba'Aka children and their rights: Between the processes of poverty and deprivation

Urszula Markowska-Manista

Abstract

This chapter presents the socio-cultural situation of children from the Ba'Aka indigenous community, a hunter-gatherer group inhabiting the Sangha-Mbaéré region of the rainforest in the Central African Republic. Drawing on primary research, I discuss the issue of education, which, as a right enshrined in the Convention on the Rights of the Child, should be provided to all children in the world (Art. 28, 29, 30 CRC). The educational situation of Ba'Aka children places them at the crossroads of traditional indigenous and modern life in the Central African Republic. I will outline the difficult situation of children who are 'unheard' in the minority and majority worlds, and 'invisible' in the crush of global problems.

Keywords: Ba'Aka, children, children's rights, education, ORA method

Introduction

Used out of context, the phrase *child poverty and deprivation* burdens children with stereotypes and discriminates against them. After all, it is adults and the systems they construct that are responsible for the situation of children. In this chapter we outline the difficult situation of hunter-gatherer children from the Ba'Aka community[1] – contemporary nomads inhabiting the Sangha-Mbaéré region of the rainforest in the Central African Republic (CAR). Contemporary Ba'Aka are at the crossroads of the world of their ancestors' traditions and the world of modernity. This is a situation of accelerated globalization, which is entering Ba'Aka settlements and villages without affording them time or the possibility of adapting to the new living conditions. They are 'unheard' in what what I term the minority and majority of the global world and invisible in the crush of global problems (Markowska-Manista, 2016). This is due to a number of external and internal factors shaping the contemporary reality of the formerly colonized country.

CAR broke free from colonial oppression (Birmingham and Martin, 1983; Loomba, 2007). However, since the 1960s it has been experiencing internal

colonization and civilizing missions by the countries of the Global North so as to be 'fruitfully' written in the narrative of national development (Markowska-Manista, 2016: 43). In the first part of the chapter I discuss postcolonial representations: images and narratives perceived from the perspective of a female researcher who (between 2002 and 2012) conducted field research among excluded and marginalized children and young people in fragile contexts in Central Africa. The chapter provides a focus on Ba'Aka children's education, education being a basic human right (the child's right to education: Article 28 of the Convention on the Rights of the Child 1989, Article 26 of the Universal Declaration of Human Rights, Articles 13 and 14 of the International Covenant on Economic, Social and Cultural Rights 1966). I will attempt to outline the dilemmas connected with the problematic educational situation influencing hunter-gatherers' daily life in subsequent parts of the chapter.

Contemporary hunter-gatherers: the *Pygmies* from Central Africa[2]

Systemic and non-systemic dimensions of entanglement and prejudice against the Pygmies have been passed on from generation to generation, and now seem to be so deeply rooted in Central African societies that many of the representatives of the Pygmy population do not even question the social stratification they have been facing for centuries. The era of colonialism in Central Africa has contributed to the development of present-day (postcolonial) relations based on coercion and characterized by inequality, marginalization, and interdependencies between hunter-gatherers and their sedentary neighbours that are difficult to resolve. Colonialism has also produced Western, stereotypical representations of the Pygmies that were formed on the basis of colonial reports (from the European perspective), rather than on attempts to understand or acquire information from the representatives of hunter-gatherer cultures. All these factors, as well as political, social, and economic determinants that are not favourable to integration and social development, have exacerbated poverty and deprivation and the Ba'Aka's inability to meet their basic needs. These are the needs, which, if met, would allow them to take a step ahead and break blind cycle of generational poverty.

Today, the contemporary hunter-gatherers are searching for identity in the various ways they interact with the codes and baggage of traditions, while being surrounded by the new patterns and codes of modernity. Unable to adapt to the new living conditions, they become homeless and migrants in the countries they inhabit. Thus, the social and political discourse in the states they live in, as well as the stereotypical image of the Pygmies in the media, literature, popular science, and academic literature (which is also present in Europe), are important aspects in considering their difficult situation. The passing of traditional hunter-gatherers is not accompanied by great emotions or social campaigns. 'The forest has drifted away…', as the Ba'Aka would emphasize in the interviews conducted for this paper. As their access to the forest has become increasingly restricted, the nomads described by

20th-century anthropologists have been disappearing: the Ba'Aka remain as half-nomads and half-settlers with torn identities, between the village and the rainforest. The shift in their lifestyle brought on by the transformation in their living environment generates new problems that were previously unknown within clans and families.

As the life stories of marginal communities show, regardless of place and time, history causes the greatest harm to ordinary people. Kiran Desai (2007) explains that profit is generated as a consequence of differences between nations; in other words, it is a product of conflict and social inequality. This is why contemporary hunter-gatherer groups living on the social margins, entangled in processes of marginalization and discrimination, are doomed to remain in the peripheries. Within the context of heightened socio-economic inequality in CAR, a niche world of extreme poverty and social deprivation is taking shape. It is conditioned by rapid transformation based on global dependencies in which the Central-African Ba'Aka function.

The Ba'Aka

The Ba'Aka are traditionally hunter-gatherers who still follow a nomadic or semi-nomadic lifestyle (Turnbull, 1961; Biesbrouck, 1999; Hewlett, 1999, 2014; Pemunta, 2013). Their culture and lifestyle are inextricably connected with the rainforest environment. As they repeatedly stress in interviews, the forest is their 'Father and Mother', the pillar of their identity and beliefs, a home, a place they cannot exist without, and a source of food and medicine.

In CAR, the Ba'Aka are a minority in relation to other ethnic groups, most of which work in agriculture. The discrimination and marginalization of the Ba'Aka by their neighbours, based on longstanding feudal interdependencies, has led to their exclusion from the system of education. The Ba'Aka, who live in settlements or are in the process of settling in villages, are still perceived by Bantu people as 'inferior' beings. They are frequently degraded and marginalized by neighbouring tribes in all the African countries whose territories they inhabit (Kenrick and Lewis, 2001). Displays of racism and discrimination are not absent from intertribal relations. This is encouraged by a widespread stereotype the Pygmies are backward and are able to survive thanks only to their Bantu 'patrons' to whom they supply part of the food obtained in the forest (Dhellemmes, 1988). Their submissiveness, inability to oppose their abusers, miniscule height, and tendency towards instant retreat to the forest when under threat have all contributed to a centuries-old stigma of 'the inferior ones'. The Congolese proverb 'The Pygmy is a piece of talking meat!' reflects the situation in which this group lives today. Their low social status and a subjective sense of inferiority – which I observed in the course of my research in villages and settlements in the equatorial rainforest – stem from the difficult conditions of existence and development, as well as social asymmetries in inter-ethnic and social relations.

The Ba'Aka's migration to the vicinity of Bantu villages in search of stability has made them dependent on the Bantu to a certain degree.[3] Not all Ba'Aka possess personal identification or nationality documents, which deprives them of the right to vote, file a complaint, or seek the right to protection. They typically serve on plantations of the 'village' Bantu (their neighbours) without receiving any remuneration, or work for Bantu families for very low wages. Unable to sell their products (baskets, mats, forest fruit, meat), the Ba'Aka perform various odd jobs for the Bantu. Sometimes they receive very low compensation – disproportionate to the jobs undertaken, which forces them into longer and more inefficient work. As a result, they are re-subordinated to the Bantu who become their 'owner-patrons' and employers.[4]

The relations between the Bantu and the Pygmies are far from harmonious, while the social transformations taking place put the Ba'Aka in a situation in which they face a range of new challenges. In the past, hunting and gathering allowed them to be self-reliant in terms of food acquisition (Bahuchet, 1990). Today, searching for strategies to anchor themselves in sedentary life, they become dependent on other groups and the migrant population. They live in a state of imbalance between the past and present, robbed of the possibility of return to their traditional way of living (due to deforestation, etc.), and facing the problems of adapting to and accepting the new values and models of living imposed by global civilization. In addition, the system of education in CAR is not adjusted to hunter-gatherer culture, as it was developed on the foundations of a colonial system designed for the needs of urban areas.

What kind of education is 'the key to development'?

> *Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace* (The right to education: Article 26, the Universal Declaration of Human Rights).

In the case of the Ba'Aka, education is a particularly problematic area, which fails to free Ba'Aka children from inheriting a life in poverty and deprivation. I draw on three contemporary dimensions of the education of children from this community in CAR. The first dimension is the so-called 'forest education' based on the metaphorical '26 Letters of the Forest Alphabet'. The second approach is provided by private preschool and school education centred on the ORA (*Observer, Réfléchir, Agir*) teaching method. The third dimension involves state education based on the framework of French education from the colonial period.

In the 21st century, the Ba'Aka have to face a range of issues resulting from the process of globalization: moving from the life based on hunting,

gathering, and farming to the era of trade, as well as transfer of information and services that were little known to them earlier (before the transformations, their economy was based on the exchange of forest products). There is another factor that excludes them from participation in social life: transformations connected with the exploitation of the forest and/or the creation and expansion of nature reserves.

The process of deforestation is distancing hunter-gatherers from their natural environment, which is a space where they can express their traditions and where all their socio-economic activities take place. For several decades, money and manufactured products have been gradually replacing traditional goods. Forest camps, the traditional places of hunter-gatherer life, have become de-populated, while their inhabitants have settled in villages and the younger generation of the Ba'Aka are migrating to towns – economic centres, where they undertake temporary jobs.

Conservation programmes in the rainforest force the Pygmies to respect new regulations, failing to recognize the importance of the role the Ba'Aka play in the ecological model of using forest resources. The forest is disappearing, while the natural products and practices necessary for the contemporary hunter-gatherers' survival are becoming increasingly inaccessible. Various animal species are leaving the forest due to environmental pollution and forest exploitation, or are strictly protected in national parks and reserves. As game reserves are dwindling, and plant life is being destroyed or protected, life in the forest is becoming too expensive. The Pygmies are forced to trade based on new commercial principles and purchase products that used to be widely available in the forest. Consequently, these processes aggravate the poverty of hunter-gatherers who become homeless in their own home – the rainforest – without access to tools that would enable them to oppose these processes. As a result, the traditional Ba'Aka hunter-gatherers are increasingly compelled to take up farming to ensure survival. In such accelerated, forced evolution, they have had insufficient time to master farming and find it difficult to reconcile this form of activity with the traditional biennial calendar of hunting and gathering.

Due to restrictions on entering the forest, there are few forest camps in CAR in which the Ba'Aka live or remain temporarily. Those that remain are merely remnants of the Ba'Aka's former forest culture, which is gradually transforming into a village culture. On the one hand, for some hunter-gatherers the village is a source of prestige and a chance for stability. On the other, it poses the threat of losing their traditions and breaking the customary familial bonds based on interdependencies with the forest (acquired in the process of forest education). As results from this research indicate, life in the village restricts the possibility of continuing the traditional lifestyle and passing on their tradition to new generations. What is more, it distributes responsibility from the collective to the individual, however, the Ba'Aka find themselves to be unadaptable to the concept of individual freedom (being the master of one's destiny)[5] and the concept of self-determination as well as to the demands,

conditions and structure of the village that they are often faced with when they decide to settle there. Villages are full of contrast, ethnic division, and social diversity. They are also fraught with uncertainty and question marks that stem from the need to navigate spaces of social functioning that are new for the Ba'Aka.

The majority of the society and key actors implementing developmental projects do not always consider the specifics of the traditional functioning; the system of norms and values; and the mentality, aspirations, and needs of the Ba'Aka. 'They are facing serious threats from attempts by governments, national and international non-governmental organizations and missionary groups to "modernize" them' (Pemunta, 2013: 353). Their culture is sometimes treated as something 'primitive' or archaic, something that has to be abandoned for a 'better' model imposed top-down by administration and dominant groups, as well as individuals and groups cooperating with local communities but representing Western culture (of the Global North).

The opposition of the Ba'Aka, who defend their cultural heritage, pushes them to the social margins, triggering and at times escalating discrimination and social contempt. It impacts not only the adult population, but also the new generation. Robbed of the cultural roots of their community, having lost their traditional lifestyle and environment, both adults and children face a range of challenges. One of the key problems that aggravate the Ba'Aka's poverty lies in the fact that it is impossible to conduct traditional forest education in a way that would allow it to fulfil its aims; that is, to ensure survival.

'Forest education'

A multifaceted, socializing preparation of an individual, to ensure survival and navigation in the life of the community in the environment of the savannah and the rainforest, is the fundament of the traditional forest education of the Ba'Aka. Children are raised so as to be able to conduct all activities allowing them to procure consumption goods, which are later distributed among the community. They are also taught to preserve the cultural heritage of ancestors. Moral education is an inherent element of daily training. Children are prepared to preserve and respect the values of the group they belong to and the environment they live in. They learn to keep the secrets of the group (including its taboos) and to obey the 'teachers' (i.e. all adults) in the area of the well-being of the group and intra-clan relations, but also 'respect for an individual's autonomy' (Hewlett, 2014: 247). It is a requirement in the process of identification with the group that the individual belongs to. Children also learn collective and family responsibilities connected with the division of resources, obligations, and activities. This type of education is strictly integrated into daily life. It is pragmatic, based on the philosophy, traditions, and practical knowledge about the rainforest as the basic living environment of hunter-gatherers. It is organized and conducted

by the entire community: 'children learn from a wide variety of individuals, including parents, other adults, and, importantly, other children' (Lew-Levy et al., 2017: 370).

Forest education refers to the acquisition of knowledge and skills in the area of navigating and living in the forest, survival techniques (hunting, gathering, production), as well as customs based on the traditional belief in God – the creator and forest spirits. It is connected with a rich tradition of community rituals: singing, dancing, hunting, and oral stories. Lessons, which the young Ba'Aka received (and still receive today, albeit on a smaller scale), were based on oral transmission metaphorically called the letters of the forest alphabet. It is a Decalogue particular to the traditional lifestyle of the Pygmies. The main aim of traditional education is to help the child become an independent adult, a partner in a relationship between a man and a woman, and a person responsible for their family in the future.

Until recently, the traditional education of the Ba'Aka – the aggregate of impact of one's social background (clan, group) – met the criteria of education and shaped the child's development and personality. It was education that prepared one for life in a hunter-gatherer community or clan based on the ideology of a particular group. For thousands of years, the Pygmies lived in small groups in the space of the rainforest, surviving principally on hunting and gathering. Their activities changed with the rhythm of seasons and were based on an unwritten calendar that determined the time of harvesting and hunting. Traditional education enabled the group to interpret the signs of changing seasons (wet and dry) as well as decipher the language of animals, birds, insects, and plants (Schebesta, 1936). When walking in the forest with the Ba'Aka during their hunting or gathering expeditions, it is still possible to observe their symbiosis with the natural environment and the ease with which they interpret the letters of the forest alphabet, as well as their dialogue with nature expressed through singing (Sarno, 1993).

The possibility of conducting forest education has a significant impact on Ba'Aka culture. Thanks to this type of education and the knowledge and skills acquired, the Ba'Aka can preserve the heritage of their ancestors and express the value of their culture orally – through singing as well as customary activities and skills. However, due to the change in the Ba'Aka's lifestyle and the synergy of a number of new internal and external factors connected to global transformation, today this traditional education cannot fulfil its aims.

General education: a glass ceiling

Anthropologists indicate that both traditional rearing and education in Ba'Aka culture are very informal, emancipatory, and based on the relations of power to a much smaller degree than in other cultures (Hewlett and Cavalli-Sforza, 1986; Hewlett, 1991; Hewlett et al., 1998; Hewlett and Lamb, 2005). This partly explains the problems connected with their navigation in the second area of

education; that is, general education. As citizens of CAR, Ba'Aka children have the right to participate in state education. However, due to the frequent lack of knowledge of the official language (the Ba'Aka speak a dialect and Sango language); use of the quinary rather than decimal system; lower social status; and poverty; as well as social, cultural, and political discrimination, their presence at school and access to education are problematic.

In the colonial era, the main purpose of education was to bring up Christian Africans in the spirit of values and needs desirable for the colonists. New forms of education, religious beliefs, and skills were imposed. Missions of various denominations had a monopoly on education. Education was one of the methods used by the colonial government to subjugate groups that were the most developed economically in regions that brought profit. One of the key functions of education lay in preserving a mental bond between France and its colonies. France has retained much of its influence on education in CAR, particularly at secondary level. Today, education in this Central African country is still based on the French model, though changes in the curriculum have been introduced by the government, with the aim of adjusting it to the needs of the local population. The education system in CAR envisages free, compulsory education between the ages of 6 and 14. Unfortunately, due to the unstable political situation (the country has been plagued by internal conflict for years), as well as underfinanced education, state schooling in CAR faces multiple problems. A section of the population is unable to participate in the process of education and remains illiterate. Additionally, the representation of the Ba'Aka at higher levels of education is minimal or non-existent.

Due to the escalation of the conflict in 2013, many schools were plundered, burnt, or closed. A crisis in teaching and learning ensued, leading to further consequences. As UNICEF reports: 'a third of primary school-age children were out of school' (UNICEF, 2014: 3). This situation continued after the crisis. The African Committee of Experts on the Rights and Welfare of the Child indicated in its report that in 2016, 'more than 45 per cent of school-age children do not have access to school. This is due to lack of infrastructure and the lack of qualified and motivated teachers' (ACERWC, 2016: xvii). In 2018, with the same challenges (deficiencies in infrastructure and teaching staff) continuing as a result of conflict, the situation failed to improve significantly. Many schools still suffer from poor infrastructure. In regions away from the capital, affected by the consequences of conflict and civil war, didactic materials are insufficient while teaching staff are not paid regularly. Additionally, there are not enough educated teachers, motivated to work in the regions, including Ba'Aka teachers.

Primary education is obligatory; however, many children entitled to education (registered) do not attend school. Parents who want to send their children to a state school have to register them, buy uniforms, school accessories, and in many cases also pay school fees. This complicates participation for children

living in the poorest regions of the country, in particular children from indigenous populations inhabiting the rainforest. As an indigenous community, the Ba'Aka are amongst the poorest populations in CAR (in terms of material situation). The right to primary education is one of the basic factors that could contribute to the development and survival of Pygmy populations in Central Africa. Education could offer the Ba'Aka a chance to escape their marginalized position, though it must be stressed that to achieve this aim, a number of additional factors come into play, such as the political and economic situation in the region, and the proximity and functioning of state schools that would enable the children to continue primary education, among others. However, to be able to access state education, they need to be registered; must be proficient in French; procure the means to pay the school fees, and buy school accessories. First and foremost, they have to be respected as citizens of their country.

Within the official education systems in Central African countries, hunter-gatherer children face a range of problems. These are: lack of acceptance by the majority of the class (the Ba'Aka are a minority in state schools), unfamiliarity with the official school system, and lack of knowledge (or insufficient knowledge) of the language of instruction. All these factors generate absenteeism, as well as fear of school. The latter is also caused by a complex of inferiority of autochthonous communities in relation to the dominant group, as well as the low socio-cultural status of rejected groups (the Pygmies). This sometimes leads to the exploitation of hunter-gatherers.

There are multiple reasons why Ba'Aka children were practically excluded from the formal system of education and still do not attend state schools. The first are the considerable physical distances between the school and their places of living. Other factors, resulting from their minority status, include:

- a psychological barrier connected with school rigour and corporal punishment used against pupils;
- a logistic barrier – nomadic or seminomadic lifestyle;
- a cultural barrier – placing the values of hunter-gatherer culture and forest education above the values of the school;
- social barrier – lack of interaction between the life in the forest and the modern system of education.

Furthermore, as in the case of the Pygmies in Cameroon, in CAR 'there is the unavailability of school textbooks in their languages, and the school calendar is incompatible with hunting seasons and the transmission of traditional knowledge systems through practice' (Pemunta, 2013: 357).

It must be added that there are private Catholic primary and secondary schools, which provide a high level of education. However, the fees are expensive, and in the case of Ba'Aka children, learning there entails leaving their homes for the entire school term, thus preventing them from participating in the traditional forest education.

Mission education: the ORA method

In the late 1990s, missionaries opened mission elementary schools in the Sangha Mbaéré region. Their primary purpose was to support Ba'Aka Pygmy children in the process of their development and social adaptation in CAR, in particular their preparation for education in state schools. Education in mission schools has been conducted through the ORA method oriented towards 'forest populations' (Markowska-Manista, 2013a). The ORA method (*Observer, Réfléchir et Agir*/Observe, Think, Act)[6] is also called the 'mother method' (Messe, 2008: 20), as it applies the same approach as the Ba'Aka's education in the forest. They start their day with observation, then consider and analyse the situation, and finally turn to acting.

In the ORA method, to observe means to see, notice, distinguish, specify, listen, feel, and touch. To observe, children use their senses and all sources of stimuli that may serve observation. For the observation to have effect, reflection needs to follow. The child is encouraged to think, wonder, and contemplate. This way, Ba'Aka children interpret the environment that surrounds them and exchange their observation and comments with other children and adults.

The third stage (acting) offers children the chance to act and express their reflections (e.g. through the use of objects) according to the teacher's (any adult's) guidelines and instructions in their mother tongue.[7] As is the case with traditional Ba'Aka education, the ORA method places the child at the centre of the teacher's attention. Importantly, this method recommends an individual approach to children and ensuring their sense of security in the process of education, to enable their uninhibited participation.

The ORA method was developed within the Catholic Church with the aim of protecting the child's right to education, recognized as inalienable in many international documents, including the Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child. Partially developed in cooperation with its recipients, the method stems from respect for the Ba'Aka children's social and cultural context. It has not been officially approved, nor is it free from controversy. Nevertheless, schooling in the centres of informal elementary education (school preparatory classes) is adapted to the children's context, unlike education in state schools, which is organized in the spirit of colonial ideas, based on fixed principles, the use of punishment, and external orientation (Messe, 2008: 5).

Catholic missions in the villages of Monasao, Belemboke, Mabondo, and the surrounding settlements in the region of Sangha-Mbaéré offer access to schools in which the Ba'Aka constitute the majority of teaching staff. Based on the traditional lifestyle and upbringing in hunter-gatherer clans, these schools prepare children unfamiliar with the 'regime' and rules of state school, to start education at a primary level in state fundamental (primary) schools. However, in recent years (as opposed to the period between 1995 and 2004), teaching based on the ORA method has failed to achieve its purpose of integration and support in the process of preparing children to undertake further education.

Moreover, since the 1970s when the ORA programme for Ba'Aka children was developed, some of the methods have become obsolete and incompatible with the reality of the globalized world and changing state education. Hunter-gatherer children's needs, connected with social functioning in the face of global challenges, have changed as well. Additionally, teaching methods partially based on principles and priorities that were valid over a dozen years ago (initially for forest populations in the Amazon basin), as well as the acquisition of knowledge based on memorizing, need improvement. In many of the villages where schools operate, there has been no evaluation of the ORA method since the beginning of its implementation.[8] Further education based on the ORA method requires both a diagnosis of children's school situation in their daily living environment and an evaluation indicating that changes need to be introduced in teaching content and methods. These changes result from important transformation processes and climatic changes that have taken place since the beginning of the 21st century, influencing the Ba'Aka's priorities connected with their life in the future.

Conclusions and recommendations

Due to severe social exclusion (Kenrick and Lewis, 2001), the displacement of a large part of the Ba'Aka population outside their natural living environment (the rainforest), and the consequent lack of access to resources, the Ba'Aka have found themselves at a crossroads. Ba'Aka children are unable to take full advantage of either indigenous or modern (state or mission) education. Despite being presented as a means of the achieving Ba'Aka's social emancipation and integration in a national context, literacy and schooling drive hunter-gatherer children away from the tradition of their ancestors, perceived as backward in relation to the new cultural order. The status and living conditions of hunter-gatherers are deteriorating, while the economic and power relations between the Ba'Aka and villagers, as well as actors implementing aid projects and top-down attempts to integrate them with other inhabitants of CAR, have destabilized their social structures. They also accelerate and aggravate their deculturalization. Through the imposition of education that is not adapted to their culture and through a social structure built on hierarchy and dependency, the Ba'Aka not only lose their identity but also a chance to function in the environment of dominant communities.

Barriers that hinder their integration and adaptation to the new living conditions in villages based on imposed rules are sometimes so trivial that they remain invisible for the majority. This is exacerbated by their daily struggle with the negative consequences of the expansive interference of modern civilization (international trade and the lumber industry) in the rainforest ecosystem, as well as climatic changes, the disappearing rainforest, limited hunting areas and access to food, poor harvest, and the spread of illness and health problems. Customary laws and state legislation relating to hunter-gatherers' right to own and access land are in conflict. The consequences of social

changes and external influences aggravate their vulnerability and poverty. The inability to reconcile their traditional lifestyle with the challenges of modernity is one of the main sources of stress, overstrain, and threat of exclusion.

The indiscriminate acceptance of modernity by the Ba'Aka entails exposure to deprivation factors. They are particularly dangerous in the case of children, who face the choice between continuing their traditional forest education and attending state school, which entails losing their identity. 'Being at a crossroads' (Markowska-Manista, 2018) contributes to a growing disharmony between the actual and desirable state/level of the hunter-gatherer's life. Thus, poverty and deprivation refer to the conditions resulting from the system created by adults in which the children function. This oppressive system and environment, along with the perception of the Ba'Aka as 'primitive', hinder their development and social integration. They are also responsible for the cultural extinction of an indigenous community with a unique tradition of emancipatory upbringing and education based on respect for children's rights. Along with the Ba'Aka, their polyphonic singing and music (Kisliuk, 2000), recognized by UNESCO in 2008 as part of humanity's intangible cultural heritage, is disappearing as well (Wall, 2018).

It is true that the world offers them a place on a school bench because 'the time to learn is now the whole lifetime' (UNESCO, 2000: 18). However, it does not seem to recognize their cultural heritage and symbiosis with the rainforest. The implementation of children's access to universal education compromises their right to be who they are – to Ba'Aka identity in a collective culture that recognizes 'the collective rights of man' (Mik, 1992: 230), understood as rights executed in a community.

Notes

1. The text is written in the form of reflections from field research and based on analyses of material collected in my ethnographic field notes, during field interviews and observations. It also provides an analysis of thematic reports and texts by researchers dealing with the problem of hunter-gatherers' life in the contemporary world. My depiction of the Ba'Aka's world explains the problematic character of education directed at Ba'Aka children in the last two decades in CAR.
2. The term 'Pygmy' is often perceived as pejorative. In the text I will use the name of the Ba'Aka and other ethnic groups, while the term 'Pygmies' will be used with reference to the context and literature as well as historical and political aspects.
3. The centuries-old relations based on Bantu families' 'ownership' of Pygmy families (patron– subordinate relations) examined by Paul Schebesta (1933, 1936) do not refer to all Pygmy groups (indigenous societies) and all areas they inhabit which are discussed in this chapter.
4. Neighbourly relations between the Ba'Aka and Bantu bear similarities to subordinate-patron (servant-master) relations (one can frequently hear Bantu farmers pointing to Pygmy neighbours and referring to them as

'my Ba'Aka'). However, in fact, these relations are more complex. On the one hand, the Pygmies work for their village 'Bantu patron', who can require them to do a variety of jobs or, for example, supply him with meat and forest fruit twice a year as a form of levy. On the other hand, the patron has a number of obligations towards 'his Ba'Aka'. He is obliged to ensure a minimum of protection and help with resolving family feuds (Markowska-Manista, 2017: 140).

5. Adult Ba'Aka frequently stressed in interviews that children have the right to take independent decisions about themselves and their actions. Hewlett writes on this subject as follows, 'Men and women, young and old, are generally free to do what they want' (2014: 247).

6. The ORA method was developed by a Dutch monk, Antoine J. Huysmans (1998).

7. Based on the observation of classes conducted in 'ORA schools' in Belemboke, Monasao, and Mabondo, CAR (2002–2012).

8. Based on field research and observation of staff working with the Ba'Aka in the villages of the Sangha-Mbaéré region, as well as opinions of teachers and parents expressed in interviews (2002 and 2012).

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About the author

Urszula Markowska-Manista is a field researcher, contemporary nomad, and Assistant Professor at the University of Warsaw, Poland (Faculty of Education), and Programme Director: MA Childhood Studies and Children's Rights, at the University of Applied Sciences Potsdam, Germany. She has researched, published, and taught extensively on topics related to childhood studies through postcolonial perspectives, children's rights, and education in fragile contexts.