

Having fewer children makes it possible to educate them all: an ethnographic study of fertility decline in north-western Tigray, Ethiopia

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Abstract: Education is presumed to play a decisive role in decreasing fertility rates. This article is about the role of education and other factors in fertility decline in the context of current Ethiopian policies on population and sustainable development, based on an ethnographic study of women's agency and girls' pursuit of education in one semi-urban and one rural area in north-western Tigray, in northern Ethiopia. Long-term environmental insecurity and scarcity of arable land for the younger generation in this area serve as important background. Another central issue in the study was the religious conditioning of women's choices, which stood out most clearly in the case of contraceptive use. The research consisted of in-depth, semi-structured interviews in 2008 with 25 purposively selected women from three generations, based on their life histories, linked with participatory observation and extended informal dialogue with women at different points during 2008—12. A smaller household survey with 170 women and a task-based, education survey with 200 female and male students were also conducted in 2009. In those cases where women's contestations of the authority of the Orthodox Christian priests concurred with current Ethiopian policies on fertility decline, this was based on what women defined as their own authority in reproductive matters linked with flexible adaptation to their life-situations. © 2014 Reproductive Health Matters

Keywords: contraceptive use, family planning policy, fertility decline, environmental insecurity, religion, girls' education, women's agency, Ethiopia

In the colourful murals which decorate primary schools in the semi-urban and rural area of this study in north-western Tigray, Ethiopia, the slogan "education is the basis for development" is common. Together with the painted image of a girl and a boy in graduation attire (black robe and square hat), girls' and boys' equal roles in the development of the country are emphasised. Girls are, nevertheless, ascribed a greater burden than boys in the pursuit of development. For example, in line with global policy initiatives on population and sustainable development, and women and education,^{2–8} Ethiopia's National Action Plan for Gender Equality states:

"An educated woman is more likely to delay marriage, practice family planning resulting in a smaller family size, more available food for the family, and resources to educate the children. Investing in girls' education therefore has high

social and economic returns and is instrumental in achieving sustainable development and economic growth."

This article explores fertility decline in a particular area of north-western Tigray, with long-term environmental insecurity, where scarcity of arable land for the younger generation has become a pressing issue. It also explores causality in relation to fertility decline from a different perspective from simply assuming "girls' education as contraception" as in the quote above. Total fertility is decreasing in Tigray, slightly more than the national average, despite a highly influential Ethiopian Orthodox Church, which congregates 96% of the population in the region. 10 This is significant, since the imperative of giving birth to the children God gives has, until recently, constituted a decisive influence on people's reproductive behaviour. While the government's provision of free family planning services reaches even non-literate women in the rural areas, one question asked was: whose authority weighed the most when women's religiosity is at stake in reproductive matters.

Empirical point of departure

The anthropological research on which this article is based took place in one semi-urban and one rural community in Asgede Tsimbla Wereda, a district in north-western Tigray. With yearly visits since 1993, my research there includes ethnographic fieldwork for one year in 2001-02 and four ethnographic field studies for a total of 15 months between 2008 and 2012. Focusing on education, this research was concerned with women's agency and gendered processes of change. Situated in a historical context where women had constituted 30% of the fighters in Tigray People's Liberation Front (TPLF) during the armed struggle against the military regime Derg (1975–91), 11,12 women's transgression of norms became a central research issue.

The most recent study 2008–12, included women from three generations, who have lived under three different regimes that conditioned their life-strategies, also in reproductive matters. In-depth semi-structured interviews based on their life histories, linked with participatory observation and informal dialogue drew, furthermore, on having followed women in this area in their daily lives over two decades. The purposive selection of 25 women for interviews in 2008 was based on an even age distribution between 18-75 that included literate and non-literate women from both female and male headed households in both the semi-urban and rural area of study. Seven had been either combat-fighters or cadres, civilian mobilisers (shig weyenti, literally "torches of the revolution"), or community leaders in Tigray People's Liberation Front during the struggle.

In this particular area of north-western Tigray, the research showed that the way women challenged and transgressed gender norms generally could also be traced in their reproductive behaviour. However, contrary to the explicit transgression of gender norms that took place when Tigrayan women took up arms, challenges to these norms more commonly took place in non-confrontational and flexible ways through negotiation — if not in silence. Women's strategy of keeping quiet about their own agency and

about what they did in practice to avoid social sanctions, also served the purpose of avoiding confrontation, whether with husbands or the church, on contraceptive use.

The exploratory household survey, in 2009. again with women from three generations in 170 households (109 semi-urban and 61 rural), was based on the same selection criteria mentioned above. It found that 55% of the semi-urban and 36% of the rural women had been through one or more divorces, in line with the agency manifest in the commonality of women-initiated divorces in highland Ethiopia, of which Tigray is a part. 13-15 Based on the census data from 2007, 42.5% of the semi-urban and 14.7% of the rural households in the study area were female-headed, with the regional average being around 30%. 10,16-18 The survey explored women's own perceptions of their position in the household: of those women who were currently living in a marriage/partnership, 87.3% in the semi-urban area and 98.1% in the rural area claimed they shared headship with their spouses/partners.

Based on the decisive role education is presumed to play in fertility decline, I included one question on contraceptive use in both the interviews and the exploratory household survey. Other questions covered livelihood issues, age at first marriage (their own and their daughters' in relation to underage marriage), number of marriages, number of children, and their own and their children's education. It was therefore possible to compare the women's perceptions of family planning, whether they considered using contraception, and whether they (still) believed it was a sin, with their level of education.

The exploratory, task-based education survey involved 113 girls and 87 boys aged 14-20 in grades 8 through 11 in five classes randomly selected by the directors in one rural and two semi-urban schools. The proportion of girls to boys reflected the fact that Tigrayan girls have outnumbered boys in secondary-level education in this region for a number of years. 19 The survey sought information on students' marital status (due to the prevalence of underage marriage), educational trajectory, number of siblings, and parents' and siblings' level of education. The students were also asked their views on the importance of education and to write a short essay on their wishes for the future. This latter task was intended to probe how education impacted on their perceptions of the possibilities education opened up in relation to occupation and jobs, but also their thoughts on family life and the number of children they would ideally want compared to their parents' and grandparents' generations.

The use of different qualitative methods enabled methodological and data triangulation throughout the research process, to ensure analytical rigour. The findings are not generalised, but refer only to the particular semi-urban and rural area in north-western Tigray where the study took place. The aim was to explore, in detail, the complex dynamics surrounding perceptions of contraceptive use in the context of current Ethiopian policies on population and sustainable development. The expansion of the health system in Ethiopia is part of this policy context where a countrywide family planning programme is currently also implemented in remote rural areas by a female "development army for health" of around 34,000 health extension workers.²⁰

Population, sustainable development and health sector reform

Women in the study area would commonly understand the gender-based equal rights that have been judicially secured in Ethiopia today, and the current inclusion of women in the opportunity structures of education and politics, as being acquired through Tigrayan women's participation in the armed struggle. The Transitional Government of Ethiopia, instituted when the TPLF-based Ethiopian People's Revolutionary Democratic Front had ousted the military regime from power in 1991, issued a host of new gender-sensitive policies and programmes. Among them were the National Policy on Ethiopian Women,²¹ the Health Policy,²² and the first National Population Policy of Ethiopia.²³

Presuming that population size would play a decisive role in the country's pursuit of sustainable development, the aim of the population policy was to harmonise the rate of population growth with the capacity of the country for development in terms of natural resources. Including issues like environmental conservation, improving agricultural production and employment diversification, as well as reducing rural-to-urban migration, the objectives of this population policy were also to reduce maternal and infant/child morbidity and mortality and the total fertility rate to around 4.0 by 2015. Increasing female participation at all levels of education, and ensuring

women's economic and social rights, are mentioned as means to reach this goal. Included also is a progressive, countrywide population programme to promote the advantages of a small family size in relation to human welfare and environmental security.²³

The aim of reducing the fertility rate has also been reaffirmed in the country's three poverty reduction strategies from 2000 onwards. 24-26 In these plans, accelerating development in a sustainable manner is situated at the core of the country's agenda for fighting poverty and becoming a middle-income country by the mid-2020s. Since the National Population Policy of Ethiopia was issued two decades ago, the framing of family planning has moved from being centred primarily on planned population dynamics and family health, to including explicit references to sexual and reproductive rights discourse based on both the ICPD Programme of Action 1994⁴ and the World Conference on Women Platform of Action 1995. This is the case in the National Action Plan for Gender Equality, ¹ the National Reproductive Health Strategy, ²⁷ and the National Adolescent and Youth Reproductive Health Strategy, all from 2006.²⁸

The presumption of a causal relationship between economic growth and fertility decline is a subject of much debate.²⁹ In the case of Ethiopia, which has had one of the fastest growing economies in the world since 2008, with an annual economic growth rate around 11%, the population growth rate has decreased from 3.1% in 1993 to 2.6% as per the last Ethiopian Demographic and Health Survey (DHS) 2011. And despite an increase in the total fertility rate (TFR) from 5.8 in the 1970s to 7.7 in the early 1990s, 23 it dropped below 6.0 around 2000.³⁰ According to the 2011 DHS, the total fertility rate has continued to drop - to 4.8 nationally, in Tigray to 4.6, and to 1.5 in the capital Addis Ababa. The use of contraceptives since 2000 has risen sharply for currently married women – from 8% in 2000 to 15% in 2005 and 29% in 2011. As the contraceptive prevalence rate of 20% for all Ethiopian women aged 15-49 is still considered relatively low, the goal of both the fourth Health Sector Development Programme and the Growth and Transformation Plan²⁶ is to double family planning services and increase the ratio of contraceptive users to 66% by 2015.31

Important here are the significant restructuring and decentralisation of the health system that have taken place in the country over the past two decades. The progressive health sector reform, following from the new Health Policy of Ethiopia in 1993,²² and four Health Sector Development Programmes, issued from 1997/98 onwards, placed larger responsibilities on the regions and districts (weredas) for the provision of primary health care. Public Health Care Units were institutionalised, consisting of one primary hospital and four health centres, each with five satellite health posts in the rural areas, where around 83% of the Ethiopian population lives. These units form one level of the three-tiered health delivery system where the two remaining levels comprise general and specialist referral hospitals.³¹ One health post is served by two female Health Extension Workers, preferably from the local community, with one year of health education after tenth grade.

The Health Extension Workers are supposed to spend 75% of their time on ambulant services to households promoting different health packages covering: hygiene and environmental sanitation, disease prevention and control, family health services, and health education and communication. 32,33 Playing a decisive role in reaching out to rural women in the case of family planning. these Health Extension Workers can, without requiring parental or husbands' consent, distribute contraceptives (Depo-Provera injections. implants and pills) not only from the health post they serve but also on home visits to women. In addition to these contraceptives, which are also available from private health clinics and pharmacies, health centres and hospitals in more semi-urban and urban areas provide IUDs and safe abortion services. While the indications for abortion were widened in the revised Criminal Code of 2004, 34,35 in an effort to reduce the high number of maternal deaths from complications of unsafe abortions,³⁶ the liberalisation of the legal indications for abortion is not commonly known,³⁷ and is still accompanied by clear condemnation of abortion by the Ethiopian Orthodox Church.

Parallel to these progressive interventions on sexual and reproductive health and rights, it has been possible to observe an equally ambitious expansion of the education system with schools popping up "everywhere" over the past two decades, including in north-western Tigray. The discussion below, which turns on the assumption that girls' education leads to fertility decline, probes how this causality plays out, especially in the rural area of this study, where long-term

environmental insecurity is now compounded with scarcity of arable land for the younger generation.

Education and fertility decline in the context of environmental degradation

Many studies based on national-level survey data confirm a consistency in the relationship between increased girls' education and declining fertility rates.³⁸ Nevertheless, Ethiopian policies do not rely on girls' education as contraception alone to reduce fertility rates, but have included family life education as an integral part of the formal curriculum. 23,24,39 The first poverty reduction strategy plan, which echoes the population policy in linking population size and sustainable development with the role of girls' education in reducing the population growth rate, emphasises also the need to provide mother and child health care and family planning services. Bledsoe et al, who assert that there is no empirical support for the assumption that simple causality between education and fertility decline operates everywhere, argue that fertility regulation can travel independently of education. 40 This is in line with a diffusion perspective on fertility change that argues that the spread of new ideas can result in behavioural change in reproductive matters.41

Based on actual availability of education over the past three generations in this area, the younger women have had more education than the older ones, and both women and men have had more education in the semi-urban area than in the rural area. Neither formal education nor modern contraceptives had been available for most of the middle-aged and older women in the study. Yet. in describing their experience of having given birth to up to 11 children, they said they wanted a better life for their daughters. A majority of them said they had received family planning information from the health extension workers in the rural area or at the health centre in the semi-urban area. It emerged that the countrywide information programme on family planning and the provision of free contraception had had an effect on women's perception of contraceptive use in this study. While this did not include actual contraceptive use. the findings suggest, nevertheless, that the current government-led family planning programme had started to reduce differences in perceptions of contraceptive use commonly assumed to exist between educated and non-educated women, and between women living in urban and rural areas.

A central finding in my study is that women across age groups, both in the semi-urban and rural area, used economy as a rationale for reducing childbirth, despite differences in hands needed in semi-urban and rural households, the latter being reliant on labour-intensive subsistence farming. For example, one 30-year old peasant daughter and divorced day-labourer in the semi-urban area with four years of formal education, concluded when asked if she would consider using contraceptives: "If you don't have enough means to raise many children, it's the right thing to do." One 30-year old non-literate peasant woman, said when asked the same question: "We want to give our children a good upbringing. If they are too many how can we manage?" Another non-literate 58-year-old peasant woman responded from the opposite angle: "Since we were rich [then], there was no reason to reduce the births."

The economic reasons that the women gave in the interviews and the exploratory household survey for being positive about contraceptive use ranged from escaping poverty and hunger to improving living conditions and their own and their children's health, in accord with Ethiopia's development goals. Their rationale was based on personal experience of hardship, poverty and hunger, and more recently, the scarcity of farmland for the younger generation. Pregnant with her third child, a young peasant woman aged 22 who had been taken out of school after fourth grade and married to a deacon when she was 15, said, when asked if she would consider using contraceptives:

"[Giving birth] must not become a problem for us; if we become too many it will be a problem... The priests say it's a sin, but we will use it anyway. There is not enough land now, what shall we eat if we bear too many children?"

Peasants who had resettled from central Tigray to this rural area in the late 1950s, which was then largely uninhabited, explained that the land was covered by forest then. In fact, the land area covered by forestry is estimated to have fallen from approximately 40% around 1900 to around 3% in 1993, ²³ a figure that is still used about the current situation. Except for thorny shrubs, there are few trees left in the now semi-arid and drought-prone rural area of this study, where the peasants say that rainfall tends to be even more unpredictable than before. The increased depletion of the soil and soil erosion, following

from deforestation and over-use of natural resources observable over the two decades of my visits, has, when compounded with a high fertility rate over years, resulted in lack of land for the vounger generation to start farming. People are aware of this situation, as it has happened before their eyes. This has made it increasingly important for parents in this rural area to give both their sons and daughters education, and with it, access to the development promised in the slogan, "education is the foundations for development", to secure other means of survival. The urgency of the matter is shown in the fact that mostly women of the older generation can be observed herding the family livestock - a task for smaller children - to enable them to attend school. despite this challenging their position as elders.

In this context, the younger generation of girls and boys may not only be pulled out of this rural area by education and the promise of a less harsh life, but also pushed out by lack of arable land. When women in the exploratory household survey were asked to elaborate on the importance (or not) of education, their answers centred on the improvement of their children's living conditions, based on the assumption that an educated person lives a good life. Consequently, considerations about number of children were shifting from educating only a few of their cleverest (male) offspring, to thinking that having fewer children would enable both their sons and daughters to be educated.

While only a handful of the female and male students in the task-based education survey mentioned family planning explicitly in their essay on their wishes for the future, most envisioned themselves as having between two and four children. 12 This is well in line with Ethiopian population policies and poverty reduction strategies. This finding could be used to support the prevailing "girl's education as contraception" argument that assumes that especially girls' increased levels of education leads to fertility decline. However, similar to the economic rationale of their parents' generation, the reason these female and male students gave was to secure their children's future by not having more children than they could afford to educate. The causality commonly presumed from education to fertility decline did, therefore, assume an opposite causal direction when economic considerations were central to their reasoning. It implies, however, that a more secure economic situation would again allow them to have more children.

Contraceptive use and strategic religiosity

In the predominantly Orthodox Christian and highly religious context of the two study areas in north-western Tigray, the study probed into how religiosity figured in women's reproductive choices. While I have come across younger women with a few years of primary education that were negative about contraceptive use, and intended to give birth to whatever number of children God gives, older non-literate women were in general, with a few exceptions, surprisingly positive about its use.

Gender is also at issue in relation to religious belief. 42,43 While women's and men's reverence for religious practice seems to be more equal in the rural area, women in the semi-urban area, despite being subject to the same modern influences, appear more persistently religious than men. For example, one 38-year-old woman, who had been active in one of Tigray People's Liberation Front's youth troupes, and since her second divorce had lived with her three children in her fighter mother's household, with their main income coming from brewing the local beer, said:

"Generally, when it comes to worshipping at the church there's no one worshipping like women. Men don't match that here... They have no reason, they are careless... In this place, there are many women [who go to church]... not that many [men]. They know about beer... (laughs)... [Women], yes, for the sins they have committed, they say forgive me, I'm sorry. But the men say nothing since they are superior. [They say] what do I have [to ask forgiveness for]. But [the women]... go [to church] to say release me from my wrongdoings... if I have sinned forgive me. If they want to give birth, they will go and pray. They're like that... I would also ask what [problems] do [men] have; the sin is in us [women]."

Their vulnerability in relation to pregnancy and childbirth, a point mentioned by many women, and the notion that women continued to carry the burden of Eve's sin, could explain their more persistent religious reverence relative to men. However, this did not explain the strategic flexibility of their religiosity that emerged when asked if contraceptive use was considered a sin.

The major religions in Ethiopia, comprising 43.5% Orthodox Christians, 33.9% Muslims and



A new generation of educated girls, northwest Tigray, 2009

18.6% Protestants, 10 do not openly approve the use of family planning. While the Orthodox Church has downplayed its rhetoric against contraceptive use (but not on abortion), there is a 57% higher contraceptive use reported among Orthodox Christians than both Muslim and Protestants. 44 In the interviews and the exploratory household survey, women across age groups, educational levels and the rural vs. semi-urban setting interpreted the Orthodox Church's stand on contraceptive use in different and opposing directions. When asked if they would consider using contraceptives and to what extent it was considered a sin, their answers fell into three categories based on: (1) not wanting to use contraceptives due to religious sentiments and/or because the church did not allow it, (2) interpreting the church's current silence on the issue publicly to mean they now allowed it and that women were free to use it if they wanted to, and (3) believing that the church was still against contraceptive use but that they would use it anyway. 12 While the answers were close to evenly distributed between the three categories, it is the third category of answers that is discussed here because of the contestation of authority implied. For example:

"... According to our religion it [contraceptive use] is not allowed. To use medicines [to prevent child-birth] is not allowed by our religion. But, we don't respect our religion that much [on this issue], so we use it. I, myself use it now. Meaning, to avoid

unwanted pregnancy and other things [diseases]; so far, I have taken care of myself properly. Otherwise, it's prohibited by our religion; it doesn't say take the [contraceptive] injection. According to our religion it's said to be a sin... (laughs). But I keep quiet. I use it by my own choice. If I want to give birth, if I want it, I will stop it... I don't tell the priests. That's it, they tell [us] this, this and that. Then we say okay, and listen to them. But in practice it's not done... it means... if we follow what they say it might not be good for our lives. But... we tell God and say, Lord forgive us, and do what we want (laughs)." (Married housewife, late 20s with 10 years of education, semi-urban area)

"What about it; it's good to give birth, but if you don't want to, you can prevent it. The priests don't have knowledge about this; it's the doctors who know. Who will tell them about it?" (Divorced woman, aged 70 and non-literate, living alone, semi-urban area)

Two non-literate peasant women, in their 40s and 30s, respectively, said: "We don't ask the priests' [permission]" and "Who will tell the priests?". Two others, also non-literate and in their 30s, said: "I will take it from now on, I have enough children now" and "I don't know if it's allowed or not. We will allow it ourselves!"

The divorced literate day-labourer in her 30s, referred to above, said: "The government follows science, scientific education, the clergy only religion; so there is a difference... My opinion and the priests' opinion are different. They say it is sin: that it's not allowed. From the point of view of science, it's allowed, I think." It is this latter differentiation between church and government authority that makes it possible for these women to move their decisions on family planning from the religious to the scientific domain. By claiming their own authority in reproductive matters, those women who doubted that the priests had relevant knowledge to guide them, maintained that God could be approached for forgiveness in case they had sinned. This strategic move of reproductive matters to the scientific domain of the government also had the potential of minimising any dilemmas in relation to their religious convictions. This is a reminder that religiosity does not exclude subversive practice; rather, it can be both flexible and strategic.

Conclusions

These findings from north-western Tigray suggest that with a progressive family planning programme in place that supports women's reproductive choices as a right and provides access to contraceptives free, even in remote rural areas, fertility decline may take place independent of women's level of education. This said, it is important to note that if the pressure to practise family planning from the Ethiopian government were to exceed women's own interests, the strategy of keeping quiet about their practice would also allow women the possibility to refrain from using contraceptives – if that is what they want.

The other factors that constituted a driving force for the women and the female and male students in this study to act in line with the Ethiopian government's fertility reduction policies were environmental insecurity and the scarcity of arable land for the younger generation. Based on the prevailing rhetoric that "education is the foundation for development", having fewer children in order to be able to educate them all can be understood as follows: firstly, from the necessity to find more viable means of survival for their children, and secondly, that the trajectory currently available to girls and boys to access development and escape the harsh lives their parents have lived is through education. Despite convergence with Ethiopian policies, women's reproductive choices were, in this context, based on their own awareness of and strategic adaptation to their life situations, which most of all required their flexibility also in religious matters.

Acknowledgements

Some of the information in this article was contained in my Cand. Polit. thesis: "Ane suqh' ile. I keep quiet. Focusing on women's agency in western Tigray, North-Ethiopia." University of Bergen, 2004; and in my PhD thesis: "At the frontiers of change? Women and girls' pursuit of education in north-western Tigray, Ethiopia." University of Bergen, 2013.

References

- Federal Democratic Republic of Ethiopia. Ministry of Women's Affairs. National Action Plan for Gender Equality 2006–2010. Addis Ababa: FDRE-MOWA, 2006.
- World Population Conference. World Population Plan of Action. Bucharest, 19–30 August 1974. 1976. http://www.population-security.org/27-APP1.html
- United Nations Conference on Environment and Development. Agenda 21, Rio de Janeiro, Brazil 3–14 June, 1992.
- International Conference on Population and Development. Report of the ICPD, Cairo, 5–13 September 1994. New York: UN. 1995.
- Fourth World Conference on Women. Report of the FWCW, Beijing, 4–15 September 1995. New York: UN, 1995.
- World Conference on Education for All. Meeting basic learning needs: A vision for the 1990s. Background Document. Jomtien, Thailand: WCEA, 1990.
- UNESCO. Dakar Framework for Action. Education for All: Meeting our Collective Commitments, 2000.
- United Nations. A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, 2013.
- Central Statistical Agency and ICF International. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Calverton MD: CSA-ICF, 2012.
- Federal Democratic Republic of Ethiopia, Population Census Commission. Summary and Statistical Report of the 2007 Population and Housing Census. Addis Ababa: FDRE-PCC, 2008.
- Hammond J. Sweeter than Honey. Testimonies of Tigrayan Women. In: Druce N, Hammond J, editors. London: Links Publications, 1989.
- Tsegay Berhe Gebrelibanos. The Tigrean Women in the Liberation Struggle and Its Aftermath, 1975–1996. Research Report on Gender Issues. Addis Ababa: OSSREA, 1999.
- Bauer DF. Household and society in Ethiopia. Monograph No. 6. Occasional Paper Series. East Lansing, MI: Michigan State University, 1977.
- Pankhurst R. A Social History of Ethiopia. Trenton: Red Sea Press. 1992.
- Pankhurst H. Gender, Development and Identity. An Ethiopian Study. London: Zed Books, 1992.
- Meehan F. Female headed households in Tigray, Ethiopia: a study review. Report No.35. Oslo: Drylands Coordination Group, 2004.
- Fitsum Hagos, Afeworki Mulugeta, Kefyalew K/Michael, et al. Women in Tigray: Situation analysis of constraints, opportunities and livelihood conditions. Mekelle, Ethiopia: Mekelle University, 2005.

- Miruts Desta, Gebregiorgis Haddis, Selam Ataklt Female-headed households and livelihood intervention in four selected weredas in Tigray, Ethiopia. Report No. 44. Oslo: Drylands Coordination Group, 2006.
- Federal Democratic Republic of Ethiopia, Ministry of Education. Education statistics. Annual Abstract 2005 E.C [2012/2013 G.C]. Addis Ababa: FDRE-MOE, 2013.
- Federal Democratic Republic of Ethiopia, Ministry of Health. Family Planning in Ethiopia. Addis Ababa: FDRE-MOH, 2012.
- Transitional Government of Ethiopia. National Policy on Ethiopian Women. Addis Ababa: TGE, 1993.
- Transitional Government of Ethiopia. Health Policy. Addis Ababa: TGE, 1993.
- Transitional Government of Ethiopia. National Population Policy of Ethiopia. Addis Ababa: TGE, 1993.
- Federal Democratic Republic of Ethiopia, Ministry of Finance and Economic Development. Sustainable Development and Poverty Reduction Program. Addis Ababa: FDRE-MOFED, 2002.
- Federal Democratic Republic of Ethiopia, Ministry of Finance and Economic Development. Plan for Accelerated and Sustained Development to End Poverty. Addis Ababa: FDRE-MOFED, 2006.
- Federal Democratic Republic of Ethiopia, Ministry of Finance and Economic Development. Growth and Transformation Plan 2010/11–2014/15. Addis Ababa: FDRE-MOFED, 2010.
- Federal Democratic Republic of Ethiopia, Ministry of Health. National Reproductive Health Strategy, 2006–2015. Addis Ababa: FDRE-MOH, 2006.
- Federal Democratic Republic of Ethiopia, Ministry of Health. National Adolescent and Youth Reproductive Health Strategy, 2006–2015. Addis Ababa: FDRE-MOH, 2006.
- For example: Ashraf QH, Weil DN, Wilde J. The effect of fertility reduction on economic growth. Population and Development Review 2013;39(1):97–130.
- World Bank. Fertility rate, total (births per woman). http://data.worldbank.org/indicator/SP.DYN.TFRT.IN
- Federal Democratic Republic of Ethiopia, Ministry of Health. Health Sector Development Program IV, 2010/11–2014/15. Addis Ababa: FDRE-MOH, 2010.
- Federal Democratic Republic of Ethiopia, Ministry of Health. Health Extension Program in Ethiopia. Profile. Addis Ababa: FDRE-MOH, 2007.
- Federal Democratic Republic of Ethiopia, Ministry of Health. Health Sector Development program III, 2005/06–2009/10. Addis Ababa: FDRE-MOH, 2005.
- Federal Democratic Republic of Ethiopia. The Criminal Code of the Federal Democratic Republic of Ethiopia. Proclamation No.414/2004. Addis Ababa: FDRE, 2005.

- Federal Democratic Republic of Ethiopia, Family Health Department. Technical and Procedural Guidelines for Safe Abortion Services in Ethiopia. Addis Ababa: FDRE-FHD, 2006.
- Federal Democratic Republic of Ethiopia Ministry of Health. REDUCE model for advocacy in maternal mortality. Addis Ababa: FDRE-MOH, 2004.
- Fasika Ferede Alemu. Minors' awareness about the new abortion law and access to safe abortion services in Ethiopia: the Case of Marie Stopes International Ethiopia Centers in Addis Ababa. MA thesis. University of Amsterdam, 2010.
- 38. Johnson-Hanks J. Uncertain Honor. Modern Motherhood in an African Crisis. Chicago: University of Chicago Press, 2006.
- Federal Democratic Republic of Ethiopia, Ministry of Education. Education Sector Development Program IV, 2010/11–2014/15. Addis Ababa: FDRE-MOE. 2010.

- Bledsoe CH, Casterline JB, Johnson-Kuhn JA, et al. In: Bledsoe CH, et al, editors. Introduction. Critical Perspectives on Schooling and Fertility in the Developing World. Washington, DC: National Academy Press, 1999. p.1–22.
- Knodel J, van de Walle E. Lessons from the past: policy implications of historical fertility studies. Population and Development Review 1979;5(2):217–45.
- 42. Miller A, Hoffmann J. Risk and religion: an explanation of gender differences in religion. Journal of Scientific Study of Religion 1995;34(1):63–75.
- Iannaccone LR. Introduction to the economics of religion. Journal of Economic Literature 1998;36(3): 1465–95.
- 44. UN Population Fund. A Decade of Change in Contraceptive use in Ethiopia. Addis Ababa: UNFPA, 2012.

Résumé

L'éducation est supposée contribuer grandement à la baisse des taux de fécondité. Cet article se rapporte au rôle de l'éducation et d'autres facteurs dans la diminution de la fécondité. dans le contexte des politiques éthiopiennes actuelles sur la population et le développement durable, sur la base d'une étude ethnographique relative à l'action des femmes et la recherche de l'éducation par les filles dans une zone semi-urbaine et une zone rurale au nord-ouest du Tigré, en Éthiopie septentrionale. L'insécurité environnementale à long terme et la rareté des terres arables pour la jeune génération dans cette région sert de toile de fond. Un autre point central dans l'étude était le conditionnement religieux des choix des femmes, particulièrement évident pour l'emploi de contraceptifs. La recherche consistait en entretiens semi-structurés approfondis menés en 2008 avec 25 femmes choisies à cet effet sur trois générations, en fonction de leur histoire personnelle, liés à une observation participative et un dialogue informel étendu avec des femmes à plusieurs reprises de 2008 à 2012. Une plus petite enquête auprès des ménages avec 170 femmes et une enquête sur l'éducation centrée sur les tâches avec 200 étudiants masculins et féminins ont aussi été menées en 2009. Dans les cas où la contestation par les femmes de l'autorité des prêtres coïncidait avec les politiques éthiopiennes sur la baisse de la fécondité, cette concomitance était fondée sur ce que les femmes définissaient comme leur propre autorité en matière de questions génésiques, liée à leur adaptation souple à leur propre situation.

Resumen

Se supone que la educación desempeñe un papel decisivo en reducir las tasas de fertilidad. Este artículo trata sobre el papel de la educación y otros factores en la disminución de la fertilidad en el contexto de las políticas actuales de Etiopía sobre población y desarrollo sostenible; se basa en un estudio etnográfico sobre la agencia de las mujeres y la lucha de las niñas por obtener una educación, en una zona semiurbana y una zona rural del noroeste de Tigray, en Etiopía septentrional. La inseguridad ambiental a largo plazo y la escasez de tierras de cultivo para la juventud de esta región constituyen importantes antecedentes. Otro asunto central del estudio fue el condicionamiento religioso de las muieres en cuanto a sus opciones, el cual se destacó más en el caso del uso de anticonceptivos. La investigación consistió en entrevistas semiestructuradas realizadas en 2008 con 25 mujeres seleccionadas adrede de tres generaciones, en base a la historia de su vida. vinculadas con observación participante y diálogo informal extendido en diferentes momentos desde 2008 hasta 2012. Además, en 2009 se realizó una encuesta domiciliaria más pequeña con 170 mujeres y una encuesta sobre enseñanza basada en tareas, con 200 estudiantes de sexo femenino v masculino. En los casos en que la disputa de las muieres respecto a la autoridad de los curas coincidió con las políticas actuales de Etiopía respecto al descenso en la fertilidad, esto se basó en lo que las mujeres definieron como su propia autoridad en asuntos reproductivos, vinculada con una adaptación flexible a las circunstancias de su vida.