Gender inequality in Mozambican primary education: problems, barriers and recommendations

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Considering the liberal and economic efficiency arguments for gender equality, this paper looks at some of the major economic and socio-cultural barriers to equal opportunity in primary education for Mozambican girls. Although full gender equality within a liberal understanding implies that girls and boys are offered not only the same chances of going and staying in school but also ensuring that teaching methods and curricula are free from gender biases, this paper solely focuses on the barriers to gender parity and not wider learning quality related issues associated with gender equality in Mozambican primary education. Utilising international research literature, it provides recommendations to fight the causes of gender inequalities in primary school access and retention. I argue that policy interventions should be directed at making schooling socio-culturally acceptable and economically attractive to girls and their families.
Introduction

Educational inequality is a major violation of the rights of women and girls and an important barrier to social, economic, and personal development. In 1948, the Universal Declaration of Human Rights acknowledged that everyone has the right to education (UDHR Article 26). Since then a number of treaties and declarations have been adopted to turn this aspiration into reality. Nevertheless, discrimination against females in education remains pervasive in most societies (UNESCO 2003). The Jomtien Declaration (1990) and the Dakar Framework for Action (2000) strive to go largely beyond the human rights treaties. With time-bound targets they are more achievement-oriented and facilitate monitoring of progress. However, the result by 2005 was that seventy countries failed to meet the second MDGs’ target – more than 100 million children remain out of school out of which two-thirds are girls (DFID 2006). In Africa, the highest numbers of out-of-school girls are found in Ethiopia, Ghana, Kenya, Mozambique, and Nigeria (DFID 2006).

In this paper, I utilize a theoretical understanding of gender equality based on a liberal and economic efficiency framework to argue that the government of Mozambique needs to invest heavily in the education of girls. First, the paper provides evidence that the problem of gender equality in primary education truly exists in Mozambique. Then the paper will look at the impediments to gender equality, as demonstrated by development literature and education research. Lastly, the paper reviews some major theoretical approaches from international research literature and provides recommendations. The main argument of the paper is that compensatory policies are necessary to make primary schooling socio-culturally acceptable and economically worthwhile for schoolgirls and their parents. The most cost-effective and cost-efficient mix of education policy interventions need to be based on the results of randomised experiments before

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1 The paper owes much to the discussions at Professor Fernando Reimers’ class Education Policy Analysis and Research in Developing Countries and Professor Thomas Kane’s class Microeconomics: A Policy Tool for Educators (Harvard Graduate School of Education, 2006-07).
2 The two most recent conventions – on the Elimination of all Forms of Discrimination against Women and on the Rights of the Child – contain the most comprehensive set of legally enforceable commitments concerning both rights to education and to gender equality.
3 Such an approach holds both governments and international organisations accountable, considering the pledge of the international community that no country with a credible plan for achieving EFA will be prevented from implementing it because of a lack of resources (UNESCO 2003).
the government can start implementing effective policies. Moreover, behavioural responses from girls’ families need to be considered all along the policy implementation process in order to make necessary adjustments to the policy mix.

**Primary education in Mozambique**

Mozambique is one of those poor developing countries where gender disparities in primary education persist despite international or national stipulations. With a population of 19.7 million (CIA 2006) and an area of 800,000 square km, Mozambique is one of the largest countries in Southern Africa. A poor country extending over such a large area presents a unique set of development challenges such as adequate physical and social infrastructure and effective local administration. 32 per cent of the population is between 6 and 18 years old, with annual population growth rate of 2.3 per cent (UNDP 2004). Child mortality rate is 152 per 1000 (UNICEF n.d.) and almost 40 per cent of Mozambicans are not expected to survive beyond 40 years of age (Montes & Wolfe, 2000) due to HIV/AIDS, malaria, and extreme poverty. Although the country has undergone a period of almost uninterrupted growth of around 8 per cent per annum since the peace settlement in 1992, high rates of poverty and poor health indicators persist. UNDP Human Development Report (2004) places Mozambique last out of the 14 SADC countries; it is 139th out of 144 in the UNDP’s Gender-related Development Index (GDI) (OECD 2006).

Public primary education in Mozambique is compulsory and free; it is divided into two levels: EP1 which includes grades 1 to 5 and is intended for pupils falling on the age bracket 6 to 11, whereas EP2 includes grades 6 to 7 and is intended for pupils from the age of 12 to 13. Most Mozambican schools provide only one level of primary education (EP1 or EP2), but a small share, about 10 per cent of all schools enrolling grade 1

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4 The Constitution of the Republic of Mozambique stipulates that every citizen has a right to education (Article 92), and the goal of universal basic education was affirmed by the Government in 1990, at the World Conference on EFA in Jomtien.

5 GDP (PPP) is $26.18 billion; GDP Per capita is $1,300 (2005 est.) (CIA 2006). The level of absolute poverty was reduced from 69 per cent of the population in 1996–97 to 54 per cent in 2002-03 (OECD 2006).

6 In practice, EP1 takes in many children who are much older, because they started school late, had interruptions in their schooling, repeated grades, or experienced some combination of these. This also has an impact on the ages of students in subsequent levels of schooling (Handa 2000).
pupils, covers all seven grades. Most of the children who do not access primary school and drop out early are girls. At the upper levels of the education system, however, girls disappear altogether (UNICEF 2001).

In order to provide universal primary schooling, the government increased its expenditure on education by 50 per cent in real terms between 1998 and 2003. The spending has remained skewed in favour of primary education. While significant progress has been attained towards universal access to primary education (an increase from 56 per cent to over 100 per cent between 1992 and 2001 in GER for primary education), little progress has been made in improving school completion rates which remain low, particularly for girls. The education system remains very inefficient when compared to neighbouring countries, with an average actual cost per primary student three times higher than the expected level. Improvements in efficiency, namely a significant reduction of unit costs, will be required to achieve universal primary education enrolment and completion by 2015 (World Bank 2003b).

The problem of gender equality in primary school access and retention

Goal 5 of The Dakar Framework for Action is the elimination of gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls’ full and equal access to and achievement in basic education of good quality (WEF 2000). Gender Parity Index (GPI) for primary education in Mozambique is 0.76 and for secondary it is 0.64 (UNESCO 2003). The country was unable to achieve gender parity in primary education by 2005 and is at risk of not achieving it by 2015 (UNESCO 2003). According to UNESCO’s (2003) definition, gender equality is a more complex notion which is more difficult to measure. Full gender equality within a liberal understanding would imply that girls and boys are offered not only the same chances of going and staying in school but also ensuring that there are teaching methods and curricula free from gender stereotypes.

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7 The Dakar Framework for Action was adopted at the World Education Forum in 2000 to meet collective commitments (WEF 2000).
The paper focuses on the barriers to gender parity and not wider learning quality related issues associated with gender equality in Mozambican primary education. There are two reasons behind this choice; first, considering the limited available resources in the low-income developing country, it seems to be more appropriate to give attention to ensuring gender parity first. Second, there is little evidence available about equality in educational opportunities for Mozambican girls, expressed by indicators like relevancy of curriculum and gender-sensitivity of instruction⁸.

Gender parity in access to schooling is the first step towards gender equality in education opportunity. There are significant gender differences in access to primary education in Mozambique. On average, Gross Enrolment Rate (GER) for girls in EP1 is about 20.3 per cent lower than for boys (World Bank 2003b)⁹. At about 25.7 per cent, the gender gap in enrolments was high in EP1 in 1997, where it was steady from 2000 (21 per cent) to 2003 (20.6 per cent) (World Bank 2005b). However, the gender gap in EP2 worsened over time, increasing from 7.4 per cent in 1997 to 14.6 per cent in 2003 (World Bank 2005b). There is also a variation in average age, according to gender, when kids go to school. Girls usually start later than the age of 6, the World Bank, for example, indicates that only 35 per cent of girls start school at the age of 6, whereas the percentage of boys is 43 (World Bank 2005b). This has significant effect on girls' grade completion rates because, as the World Bank report (2005b) shows, the older the age a girl starts school, the fewer school years she completes¹⁰. These trends show that the target of achieving gender parity in access to EP1 and EP2 will require considerable progress if it is to be met by 2015.

Considering girls’ dramatic dropout rates, the improved access rate in grade 1 appears to be less significant. The completion rates are systematically lower for girls than for

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⁸ Reports produced by the World Bank, UNESCO, UNICEF, and other organisations constantly point to the fact that curriculum and instruction need to become gender-sensitive in Mozambique. Yet, they do not provide a single piece of evidence proving that the curriculum and instruction are in fact discriminatory towards girls.

⁹ The gender gap in education differs substantially across provinces. The gender gap in enrolment rates is about 10 per cent in the Southern region, but reaches 35 per cent in Central and Northern provinces (World Bank 2003b).

¹⁰ Lloyd et al. (1998) came to the same conclusion after the study of Kenyan primary schools.
boys. While the EP1 completion rate in 2003 was 48.2 per cent for boys, it was only 31.9 per cent for girls. The same trend was observed in EP2, where the completion rate for girls in 2003 was 12.6 per cent, compared to 21.5 per cent for boys (World Bank 2005b). Thus, girls who actually enrol to grade 1 are more likely than boys to drop out before completing EP1, and those who pass EP1 are more likely to drop out from or never enrol in EP2 (Heltberg et al. 2003).

A turning point for girls’ attendance is the age of 14-15 where a sharp difference between girls’ and boys’ attendance rates can be observed\(^1\) (World Bank 2005b). The attendance rates for girls drop sharply from the age of 14 in all provinces (Heltberg et al. 2003). There is a clear similarity in attendance patterns among both boys and girls until the age of 15. Attendance is similar in EP1 and EP2. Although girls are slightly older when they start school, the share of girls not in school rapidly declines, and, from the age of 7 to the age of 14, the share of girls who are not in school is analogous to the corresponding share of boys. However, after the age of 14, a difference in attendance shows up. The share of girls not in school increases rapidly, much more so than the share of girls never in school. This suggests that girls are more likely to drop out beginning at about the age of 14. Also, the trend among boys (not attending) is less strong than that of girls (not attending) (World Bank 2005b). These results show even higher gender inequality than EP1 enrolment figures.

Since it is almost impossible to assess the academic achievement of those girls who stay in the system as compared to boys,\(^2\) the literacy rate can be used as an indicator measure of general progress towards equity in learning outcomes for females. Literacy is a fundamental skill which empowers women to take control of their lives, to engage directly with authority and to gain access to the wider world of learning (UN Statistics n.d.). In Mozambique, there are almost twice as many literate men (63.3 per cent) as

\(^1\) The difference between boys’ and girls’ attendance rates is observed regardless of the fact whether they are in EP1 or EP2 at the age of 14-15 (World Bank 2005b).

\(^2\) There is no national assessment mechanism working in Mozambique which would help to assess educational outcomes (World Bank 2005b). Existing indicators on educational outcomes and learning achievement do not allow a full assessment of gender equality. More qualitative indicators (e.g. measuring perceptions and expectations regarding the treatment of girls and boys) would be required to have a more accurate picture (UNESCO 2003).
women (31.2 per cent)\textsuperscript{13}. The youth literacy rate is 81.3 per cent for males and 66.5 per cent for females (World Bank 2002)\textsuperscript{14}. These disparities are significantly more pronounced in rural areas than urban areas, with almost twice the number of illiterate women in rural areas (80.8 per cent versus 41.3 per cent) (World Bank 2005a).

This evidence suggests that far too many females in Mozambique do not realise their most basic right to primary education and the disparities in access and retention rates are clearly reflected in the gender gap in literacy rates.

**Barriers to gender parity**

Below I will present the analysis of the selected barriers to gender parity in primary education in Mozambique. Based on the available evidence, I have distinguished two categories of barriers –economic and socio-cultural – to girls’ access and progress through the lower and upper primary education.

**I. Economic barriers to girls’ schooling – supply and demand**

Economic barriers to girls’ schooling are usually supply and/or demand-related. The main supply-side barriers to gender parity are the availability of primary schools and sanitation facilities. Since economies of scale imply that it is generally more cost-effective to locate schools in relatively densely populated places, poorer families, which tend to be disproportionately located in remote rural areas, may face substantially higher private costs to send their female children to school and, as a result, tend to acquire less education (Coady and Paker 2002). In some regions of Mozambique school children have to travel long distances between homes and schools, especially for upper primary schools in rural areas (World Bank 2005a; Heltberg et al. 2003). Many families indicate that they have to remove girls from school because of the concerns for their safety, where they have to walk long distances to school (World Bank 2005b). Research in such diverse countries as Ghana, India, Malaysia, Peru, and the Philippines also indicates that distance matters especially for girls’ school enrolment and attendance (Task Force 2005).

\textsuperscript{13} The 30 per cent gap between the male and female literacy rates is the highest among the South African countries (Unesco 2005).
\textsuperscript{14} Percentage of people in the 15-24 age group (World Bank 2002).
Sanitation facilities represent another problem for girls’ attendance. In 2000, a UNICEF (2001b) study found that 80 per cent of primary schools had no toilets and no hand-washing facilities. Data from 30 African countries indicates that a majority of young women do not attend school when they are menstruating if there are no private latrine facilities to enable them to care for personal hygiene (World Bank cited in Task Force 2005). These two factors, the availability of schools and latrines, cause limited access to school and particularly affect girls, because they are more vulnerable than boys to travel long distances or study in a school with no hygienic facilities.

There are three main demand-side economic barriers: additional school costs, opportunity costs of girls’ time (i.e. the cost of attending school in terms of other domestic work let undone) and limited opportunities of women’s employment.

Although there are no tuition fees for primary education in Mozambique (World Bank 2005a), families have to incur other school costs such as for clothing, uniforms, school materials, building funds, and travel (World Bank 2005a). These constitute a significant burden for poor families, especially girls’ families (DFID 2006) because of the socio-cultural factors discussed below. When discussing the economic aspects of gender inequality, Herz and Sperling (2004) maintain that parents may not be willing to pay additional costs associated with schooling for girls although they appear to be willing to pay the same costs for boys.

Opportunity costs related to the work girls perform in the family are high because girls have a load of domestic and seasonal labour (World Bank 2005a). In other words, to girls’ parents it may seem economically inefficient to send their daughters to school when they have so much housework. Research demonstrates that girls’ opportunity costs are very important in terms of lost chore time and their contribution to family income. Moreover, it shows that since girls are expected to do more housework than boys, opportunity costs of girls’ education are higher in many African countries (Herz and Sperling 2004).
Research demonstrates that schooling may not be very attractive to females in a society where women have few chances of employment (Tomasevski 2003). Evidence from Mozambique indicates that the share of economically active women in wage employment in the non-agricultural sector is only 10.1 per cent, compared to 30.7 per cent for men (World Bank 2005a). This situation is probably linked to women’s high illiteracy rates, the low proportion of women with some formal education, and low social status of women.

II. Socio-cultural barriers to girls’ primary schooling

Socio-cultural barriers in girls’ education are caused by lower social status of women in the country, pregnancy, marriage, lack of female teachers, and widespread sexual abuse at school. Since women are not perceived as breadwinners and are traditionally viewed as potential mothers, they have a lower social status than men in Mozambique. Consequently, low value is granted to girls’ formal education (World Bank 2005a; World Bank 2005b). A World Bank survey (2005b) found out that many community members think primary school is a place for children and, thus, not appropriate for girls who have begun the menstruation cycle - these girls are no longer considered children. After going through the initiation rites, girls do not usually go back to school because the community makes them understand that they have become women and need to be ready for marriage (World Bank 2005b). Right after their first menstruation (12-15 years old) they start living with their husbands. Early marriage is widespread in Mozambique with approximately 22 per cent of girls married by the age of 15 in 2004 (FAO & UNESCO 2005; Population Council 2001). Pregnancy is one of the main reasons for girls dropping out of primary school at the age of 14-24 (World Bank 2005b)\textsuperscript{15}. Although they have legal rights to continue schooling while being pregnant, the community does not encourage young pregnant girls to go to school (World Bank 2005b) and dropouts due to pregnancy reach 9 per cent in primary school (Eloundou-Enyegue 2004). Evening classes represent alternative schooling option for married girls. However, they are inconvenient because girls have to go back home in the evening without transport.

\textsuperscript{15} Very few girls (both married and unmarried) have ever used or are currently using a modern method of contraception (Population Council 2001).
and confront the risk of harassment. The family, therefore, usually forbids them to attend these evening classes (World Bank 2005b).

The lack of female teachers has been identified as one of the main causes of girls’ low enrolment and attendance (FAO & UNESCO 2005; ILO 1998). At present, only 27 per cent of primary school teachers in Mozambique are women (World Bank 2003b), with some districts employing no female teachers at all. This is particularly the case in rural areas, like Niassa, Cabo Delgado and Nampula (North), Zambezia, Manica, Tete and Sofala (UNICEF 2001). New teachers in Mozambican primary schools are usually recent secondary school graduates, men who sometimes lack maturity and ethical principles which might lead to harassing behaviour toward young girls (World Bank 2005b).

Some parents refuse to send their daughters to school because of the clear danger of sexual abuse from classmates or teachers (World Bank 2005b). UNICEF (2001) reports that it is becoming common in Mozambique to find cases of sexual harassment and rape against girls by teachers, without any punishment from the system\textsuperscript{16}. A survey (World Bank n.d.) of Mozambican female adolescents that have had sex found that 19 per cent of their first sexual experiences had been forced\textsuperscript{17}. Reports (US Department of State 2006) also indicate that girls were forced to exchange sex with teachers to get passing grades. Aikman et al. (2005) provides a case study about widespread harassment of girls by male teachers, ranging from verbal and physical abuse to sexual abuse. Aikman maintains that this is a major influence on girls’ decisions to drop out of school. Parents do not let girls attend school because they want to avoid their daughters’ pregnancy before marriage arrangements have been made (FAO & UNESCO 2005). Considering the fact that violence against women (and the fear of violence) also increases women’s vulnerability to unwanted pregnancy (Kameri-Mbote 2005), sexual abuse is an extremely relevant factor for girls’ school enrolment and attendance decisions. Perpetrators of crimes associated with child sexual abuse have

\textsuperscript{16} Sexual abuse of a child under 16 is illegal under the Penal Code (US Department of State 2004).

\textsuperscript{17} This is likely to be an underestimation because many women are reluctant to disclose violence due to shame and fear of reprisals (World Bank n.d.).
rarely been identified and prosecuted and punishments were not commensurate with that of a serious crime (US Department of State 2004). According to Save the Children, the Ministry of Education officials denied these allegations (FAO & UNESCO 2005).

III. Girls in rural areas: double disadvantage

The girls who reside in rural areas\textsuperscript{18} are twice as disadvantaged as those from urban areas – because of gender discriminations and the rural location of their residences (World Bank 2005b). The difference in school attendance between boys and girls is bigger in rural areas than in urban areas, especially among the 11 to 14 and 15 to 24 age groups (World Bank 2005b). While 50 per cent of rural girls (age group 10-14) are not in school and 50 per cent are in primary school, among urban girls of the same age, only 25 per cent are not in school, 65 per cent are in primary school and 10 per cent are already in secondary school (Population Council 2001). The differences are even more pronounced, if one compares rural girls’ enrolment to urban boys’ enrolment figures (World Bank 2004). As for completion rates, urban girls are ten times more likely to complete primary school than rural girls (Population Council 2001). Opportunity costs in rural areas are much higher because of bigger domestic workload such as procuring water from long distances and playing a crucial role in agricultural production (FAO & UNESCO 2005). Cultural factors affect rural girls most of all, especially in the north where people strictly follow initiation rites (World Bank 2005 c). Research demonstrates that proximity of school is a key factor explaining enrolments in EP1 and EP2 (World Bank 2005 c). Though the distance to the nearest school (primarily EP2, because the number of EP1 schools is higher) may not be a significant factor in urban areas, it is a significant factor in rural areas, where the closest EP2 school may be several kilometres away (World Bank 2005b). In rural areas there are fewer female teachers, on average 22 per cent in EP1 and 16 per cent in EP2 (World Bank 2005b). Besides, links between education and better access to the labour market are less apparent in rural than in urban context (FAO & UNESCO 2005).

\textsuperscript{18} The poorest population of the country is accumulated in rural areas – 90 per cent of poor Mozambicans live in rural areas (Unesco n.d.) and the rural population makes up 80 per cent of the entire population of the country (Handa 2000).
International research and policy recommendations

It is extremely significant for Mozambique’s future economic and social development to invest in the education of girls. My primary argument in the recommendations below is that definite compensatory policies need to be implemented to make schooling socio-culturally acceptable and economically appealing to girls and their families. However, the most cost-effective and cost-efficient mix of policy interventions will need to be based on the analysis of the results of randomised experiments before across-the-board execution and the families and girls behavioural response to different interventions during the process of policy implementation.

Existing research proposes different policy strategies in relation to the equal opportunity for school children. Reimers (2000) concentrates on three alternative equity policies – conservative, liberal, and progressive\(^{19}\) – and maintains that progressive policies of positive discrimination need to be implemented to guarantee that disadvantaged groups are granted the same educational opportunities as advantaged groups. Reimers (2000) defines positive discrimination or compensatory policies as those that reallocate educational opportunities in a way that targets educational resources disproportionately in order to improve the educational environments of disadvantaged children. He maintains that only such policies can compensate for prior neglect or social disadvantage because considering the existing social disparities, it is unlikely that providing the disadvantaged and privileged with the same educational environments will close the gap (Reimers 2000).

Shultz (2001) shows that marginal social return for women’s schooling usually exceeds the marginal social return for men’s schooling, especially in countries where women are less educated. The main argument is that health and schooling of children tend to be

\(^{19}\) Conservative position in the social structure determines education chances of students. Standard practice follows this definition, i.e. it is taken for granted that things will stay the way they have been because there are influential forces outside schools. Schools cannot do social engineering. The liberal definition, on the other hand, is about the equality of treatment, i.e. schools should not accentuate differences existing outside schools and policy makers need to equalise inputs and processes. The progressive definition is primarily interested in the quality of outcomes. Equality of outcomes requires inequality of treatment, i.e. positive discrimination; and implies that more should be done for those who have the least or are more disadvantaged (Reimers 2000).
more closely associated with their mother’s education than their father’s. Moreover, women who are more educated tend to work more hours in the formal market are taxpayers and can potentially reduce tax distortions. These conditions, as argued by Schultz, justify the disproportionate allocation of public expenditures toward women’s education. Thus, it is economically efficient to reduce the gender gap in schooling, especially in those countries where child survival is relatively low and fertility is relatively high (Schultz 2001), as is the case in Mozambique.

Research on education and economic growth has also shown that failing to invest in girls’ education lowers GNP (Knowles et al; Klasen cited in Task force 2005), and countries that have equalised their educational achievements for men and women in the last several decades, on average, tend to grow faster (Schultz 2001). Abu-Ghaida and Klasen (Task Force 2005) report that countries that fail to meet the goal of gender parity in education will face considerable costs, both in forgone economic growth and in reductions in fertility, child mortality, and malnutrition. They estimate that countries that are off-track in female primary and secondary school enrolment might lose an average of 0.4 percentage points in annual economic growth between 2005 and 2015. Although the economic efficiency argument for directing social investments toward girls’ education is strong, the actual mechanisms to effectively accomplish the goal are not well-developed.

The World Bank recommendations for Mozambique are based on a liberal approach and propose an overall increase in the funding for education instead of positive discrimination strategy. The Bank suggests that the implementation of policies directed at the increase of the country’s overall enrolment rate inevitably implies better chances for the schooling of those who are currently marginalised (World Bank 2003a). Following this recommendation would mean that government policies would continue to reinforce existing gender inequalities. Since the societal norms do not allow girls to enjoy equal opportunities of access and completion of primary education, the

20 However, there are some scholars who argue that the positive relationship between the schooling of mothers and their children is biased due to correlations between schooling and heritable “ability” and assertive mating (Behrman & Rosenzweig 2002).
government’s goal is to abolish existing gender inequalities. The only way of making drastic changes which are required in Mozambique is for the government to facilitate provision of differential treatment for girls. It should be a deliberate effort to advantage girls, especially those living in rural areas.

International research (Lloyd 2001) demonstrates that governments can influence the demand for education by changing the costs and benefits of attending school. Demand-side strategies have been particularly effective in promoting female education in developing countries (Chesterfield & Enge 2002). Recommendations #1 and #2 deal with demand-related policies and Recommendation #3 deals with the supply-side intervention.

Recommendation # 1: The Ministry of Education (MoE) should provide Conditional Cash Transfers (CCTs) to those families who ensure that their girl(s) complete a year of primary school and do not get pregnant. Before being approved to participate in this program, communities will be required to ensure that there is a female latrine facility in their school. Funding for latrine arrangement will need to be provided by the government.

CCTs would compensate families for additional school costs and opportunity costs of sending girls to school, providing an economic incentive to support girls’ educational participation and would ensure not only attendance but also timely enrolment. Since there is evidence (Chin; Drèze and Kingdon; Schultz; Coady cited in Glewwe & Kremer, 2005) that the elasticity of demand for schooling may be higher for girls than for boys, policies which compensate families these costs, the additional schooling costs and the opportunity costs, could be effective in increasing school participation of girls.

It could be argued that CCTs should be conditional on regular school attendance\textsuperscript{21} and should be actually paid to families upon the completion of a school year\textsuperscript{22}. Random

\textsuperscript{21} At least 85 per cent of attendance, as in Bangladesh’s FFE (Reimers et al. 2006).
\textsuperscript{22} It can be argued that CCTs at the end of the school year may not offset the large costs incurred at the beginning of the school year. However, I am primarily considering this policy option as an incentive
attendance inspections will need to be conducted by local district education offices several times a year to ensure that girls are actually attending the school.

Research (Reimers et al. 2006) shows that education-focused CCT programmes have had significant impact on enrolment and continued attendance of girls. For example, a CCT programme in Malawi\textsuperscript{23} truly contributed to increased primary enrolment and the perseverance of girls (CDIE cited in Chesterfield & Enge 2002). A national scholarship program for girls in rural Bangladesh can be cited as another success story as it increased girls’ enrolment rates even after controlling for other measurable influences (World Bank 2001). Other well known examples include Bolsa Escola in Brazil and Eduque a la Niña in Guatemala (Reimers et al. 2006). However, the impact of such programmes on completion rates has not been very well documented. Furthermore, due to the costs and difficulties involved, it is unlikely that there will be enough evidence about long-term effect of CCT programmes, i.e. whether these programs do really help families alleviate their disadvantaged situation by making their children more educated. CCTs’ assessments will most probably continue to be an extrapolation exercises which talk about long-term outcomes from the information gathered about short-term impacts (Reimers et al. 2006).

This recommendation combines the requirement of attendance and grade completion with the requirement of not getting pregnant. International experience demonstrates that scholarships entailing avoidance of pregnancy are highly useful for retaining girls at school (Chesterfield & Enge 2002). In Guatemala, for example, families were provided with scholarships if their daughters did not get pregnant in primary school. This proved to be extremely successful in encouraging girls to stay at school (Chesterfield & Enge 2002).

Some researchers (Glewwe & Kremer 2005) suggest that the increase in girls’ enrolment in some countries where CCT programmes were implemented may be

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against girls’ socio-culturally disadvantaged position and not their families’ inability to cover school costs. In fact, the latter factor can be problematic not only for girls but for boys too. \\
\textsuperscript{23} Girl’s Attainment in Basic Literacy and Education-GABLE (Reimers et al. 2006).
\end{footnote}
primarily due to the general economic development. Kremer, Miguel, and Thornton conducted a randomised experiment of Girls’ Scholarship Program (GSP) in rural Kenya in late 2001 to investigate the issue. A portion of the scholarship was paid directly to the school for school fees, the other portion to the family for school supplies and uniforms. The randomised experiment showed that the girls eligible for the scholarship had significantly higher school attendance rates as well as significantly higher test scores, averaging gains of 0.12-0.19 standard deviations\(^{24}\) (Glewwe & Kremer 2005).

Latrines construction should be a necessary condition for the communities to participate in the CCT programme. It will be useful not only to save public money on workforce, but also to engage the community in efforts for girls’ education. The funding for arranging latrines should be provided by the government. CCTs would be an incentive for the community to use public resources and improve school facilities for girls. Without this being a condition for CCTs, communities might not have agreed to invest efforts in girls’ education, considering girls’ social status in the country and the low value attributed to their education.

*Recommendation # 2: The government should provide some incentives to industries, especially rural ones, to make them equal opportunity employers of local women.*

It has been estimated (Lloyd 2001) that decisions about how long to stay and how much effort to invest in school are effected by the impact of schooling on future economic opportunities. When it comes to primary school completion in developing countries, actual economic returns for men seem to be higher than those for women (Lloyd 2001). If private returns for women increase, girls will be more inclined to complete different levels of schooling. Also, the probability of attending school will be higher if it enhances chances of finding a job (Lloyd 2001).

The government of Mozambique should model a cost-effective intervention in the market’s operations by providing different economic incentives to existing employers to

\(^{24}\) Also, they found positive externalities on boys (who were not eligible for program) and girls with low pre-test scores (who had little chances of winning the award).
hire women, and thus increasing private returns to girls’ primary education. The important factor here would be that the women should not be paid excessively low wages in comparison to men. Research (Schultz 2001) shows that such policies have worked in Taiwan and China, and to some degree in Korea and Thailand, and may now be occurring in Bangladesh.

Recommendation # 3: The MoE should subsidise the establishment of community schools in the selected areas, especially rural regions, with limited access to full primary schools.

International research shows that providing schools within local communities has substantially increased enrolments for girls in Egypt, Indonesia, and several sub-Saharan countries (Duflo 2001; Rugh 2000 cited in Task Force 2005). By locating schools within accessible distance, transportation costs are reduced. Also, transportation time decreases which translates into the reduction in opportunity costs (Patrinos 2002).

The country-specific research (Handa 1999) indicates that the presence of a school in the village is an extremely important determinant of children’s enrolment in Mozambique. The World Bank’s 2005 analysis also shows a strong link between enrolment and school proximity in rural areas in Mozambique. If a school is located 30 to 45 minutes away the probability of rural children enrolling in school drops by 11 per cent, 19 per cent if it is 45 to 60 minutes away, 27 per cent if it is 1 to 2 hours away and 37 per cent if it is more than two hours away. For girls, distance to school matters more than for boys (World Bank 2005b), thus, based on the local and international evidence it can be inferred that by reducing the distance to the nearest primary school it should be possible to attract more girls to school.

The proposed initiative can help to efficiently increase the number of schools, guaranteeing that there are enough schools for all girls in close proximity to their residence areas. The MoE should start by mapping those areas where there is a
shortage of primary schools and where girls’ enrolment and retention rates are the lowest. Ideally, this should be followed by the establishment of community school committees made up of parents. While the committees will be responsible for establishing the school, hiring teacher(s) and monitoring teacher attendance, the MoE will supply initial materials, cover teachers' salaries and other expenses. Although boys will be allowed to enrol, subsidies need to be provided according to the number of girls enrolled.

This model has proved to be effective in the international context. Community schools for girls in disadvantaged areas of Egypt and Bangladesh were successful (Lloyd 2001). The proposed model is very similar to the Rural Girls' Fellowship program in Balochistan, Pakistan, which was targeted at poor primary school kids, but specifically focused on girls’ enrolment because a subsidy was provided according to the number of girls enrolled (Lloyd 2001). This policy intervention proved to be more cost-effective than income transfers to poor families or construction of new public schools (Lloyd 2001).

Recommendations #4 and #5 deal with compensatory policies designed to alleviate the socio-cultural barriers to Mozambican girls’ access and retention in primary school.

Recommendation # 4: The MoE should recruit more female teachers.

International research demonstrates that recruiting more female teachers usually works for increasing girls’ school enrolment (Rugh 2000; World Bank 2001; Herz et al. 1991). Female teachers can address girls’ security concerns and serve as useful role models (UNICEF 2001; Task Force 2005). Specifically, research shows (Kengue and Mingat cited in World Bank, 2003b) that there is a negative correlation between the percentage of female teachers and the dropout rate of girls with an elasticity of grade completion of

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25 Girls’ enrolment increased significantly in some areas, 14.6 per cent in Chagai and 22.1 per cent in Gwadar, but decreased by 5.4 per cent in Mastung/Kalat. It has been maintained that the drop in girls’ enrolment in some areas was due to factors unrelated to the Fellowship schools themselves, for example, to crop failure (Orazem cited in Patrinos et al. 2002).

26 Details about this program are available from Patrinos et al. (2002).
girls with respect to the proportion of female teachers of about 0.4 for low-income countries.

For Mozambique, increasing the proportion of female primary teachers from the current 27 per cent to 50 per cent may increase the retention rate of girls to about 41 per cent. Modelling which has been done according to the existing observations by province (World Bank 2003b) does indeed show clear negative correlation between the percentage of female teachers and the dropout rate of girls (World Bank 2003b). The World Bank’s report (2005c) provides an analysis of a school in Namacurra District and shows increase in girls’ enrolment following the increase of the female teachers. The ILO explains that girls’ under-representation in EP1 in the central and northern provinces (37 per cent of students) is due to the scarcity of female teachers. In those provinces only 23 per cent of teachers in EP1 and EP2 are women (ILO 1998).

Aikman & Bechtel (2005) extend the analysis by showing that women teachers and school directors are proving to be very positive role models for girls in the rural areas of Mozambique. The hypothesis about the role-model effect was studied by Glewwe & Kremer (2005) based on research results from India. They suggest that the presence of at least one female teacher is important in providing a role model for girls. However, the addition of a second female teacher has a comparatively minor role-model effect. Considering this hypothesis, the MoE may first try to ensure that each class should have at least one female teacher.

Successful recruitment of female teachers will depend on addressing those factors which are problematic for female teacher employment, especially in rural areas. Research shows that the shortage of primary school female teachers in Mozambique may be attributable to the social problems that young women encounter when assigned to schools in unfamiliar areas (ILO 1998). According to UNICEF (2001), the majority of females tend to refuse district appointment proposals because access to basic health services and other facilities do not exist in most of the districts and schools far from the

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27 However, this correlation may partially be explained by different income levels (World Bank 2003b).
provincial capital; women, especially single ones, rarely want to go to rural areas for the reasons of security, comfort and services (transport, electricity, access to mass media, information, markets, etc.) (UNICEF 2001). The lack of accommodation also limits the proportion of female teachers in rural areas (World Bank 2005b).

These deterrent factors could be somewhat minimised if the MoE were to recruit young women to teach in their home areas, provide comfortable accommodation if assigned to a job far from the place of residence and/or assign female teachers to schools in pairs. Also, female teacher recruitment should be accompanied by prospects of promotion to education leadership positions. The MoE will need to take immediate steps to increase the representation of women among school directors, teacher trainers, provincial and district administrative staff, and within the MoE itself (ILO 1998).

A big supply-related issue is the shortage of qualified female teachers in Mozambique. Half of the employed teachers do not have formal teacher training (UNESCO n.d.). However, international scholarship suggests that the lack of educational qualification may be compensated for female teachers’ knowledge of and commitment to local communities (Herz and Sperling 2004; Task Force 2005).

*Recommendation #5: Special reproductive health classes for girls should be a part of the primary school curriculum.*

Since for the majority of Mozambican girls pregnancy is equated with dropping out of school (World Bank 2005b), this type of intervention is recommended for the purpose of delaying sexual and reproductive activities of primary school girls. The reproductive health class, which should be a part of curriculum, would provide basic sexuality education to make girls understand why it is necessary to postpone sexual activity to a later age. Also, recognising the inevitability of many girls becoming sexually active, the class should make the information about pregnancy prevention available to primary school girls.
International research (Eloundou-Enyegue et al. 2004) suggests that programmes to avoid unintended pregnancies among teens have spillover benefits in terms of promoting gender equity in education. One of the arguments is girls’ unique vulnerability to pregnancy-related school dropouts and researchers maintain that the gender gap in schooling can be decreased by effectively addressing pregnancy-related dropouts (Odaga and Heneveld 1995; Hyde 1995). The World Bank (2003c) proposes family life education as one of the possible interventions to reduce dropouts because of unwanted pregnancy. Research (Shuey 1999) conducted in Uganda demonstrated that a primary school health education programme could be effective in increasing sexual abstinence among school-going adolescents. This programme resulted in lowering the percentage of students who stated they had been sexually active from 42.9 per cent to 11.1 per cent28. A rational decision-making model rather than a punishment model was the main reason of abstention. The efficiency argument here is that such programs do not usually cost much. According to Shuey (1999), reproductive health classes do not have to be expensive and can be implemented with staff present locally.

Recommendation # 6: The government should adopt and disseminate procedural guidelines governing how schools need to address cases of sexual violence. Special centres need to be established for the victims of sexual abuse.

The government should make this an issue of national importance by clearly condemning all forms of violence against girls. The willingness of political parties to deal with the problem at the national level has considerable influence over how seriously individual institutions take the issue (Mirsky 2003). It can be expected that most of the schools will be reluctant to make drastic changes in this sphere because, as research (Mirsky 2003) demonstrates, efforts to address questions of sexual violence present significant safety and ethical considerations.

The detailed guidelines need to explain how schools should treat victims and perpetrators of violence. Also, the information about penalties associated with sexual

28 Results were statistically significant not only for girls but for boys as well (Shuey 1999).
abuse will have to be clearly communicated to the public. Besides spreading the information through school channels, the MoE will need to actively use mass media as a form of communication and conduct nation-wide awareness-raising campaigns.

It may be beneficial for the government to consider establishing special centres where abuses against girls can be reported; such centres could be staffed by trained police, counsellors, and medical personnel. Monitoring mechanisms will have to be in place to ensure that the procedures are effective and accessible, especially in rural areas\(^{29}\). Sharing the experience of South Africa, the MoE may find it appropriate to also establish a special unit to coordinate sexual abuse prevention (Leach 2003)\(^{30}\).

Recommendation #7: The MoE will have to examine in greater detail the issues of efficiency, public-private partnerships and marginal cost benefits before starting the implementation of the above-mentioned policies.

There are three possible sources of freeing more resources for the compensatory policies aimed at gender gap reduction in primary schools: (i) identifying and removing all “ghost teachers” from the payroll, as teachers on the EP1 payroll exceed in number those recorded by the schools by 20 per cent; (ii) rationalising the deployment of teachers across provinces and schools, improving the use of teachers’ time in EP2, and reallocating teachers from EP2 towards EP1; (iii) reducing the subsidy on tertiary education (World Bank 2003b). These savings would significantly contribute to the costs associated with the gender parity oriented policy recommendations.

Research demonstrates that successful education systems cannot be designed or operated by one sector alone, and that the cooperation of the government with the private sector is indispensable for the elimination of educational inequalities (AED 2006). Demand for education coupled with shrinking government budgets is obliging the public sector in many countries to develop innovative partnerships with the private sector.

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\(^{29}\) This is similar to the Human Rights Watch recommendation for Zambia (HRW 2003).

\(^{30}\) In 1996, South Africa’s education department set up the Equity Task Force in order to introduce new laws protecting school students (Mirsky 2003).
sector (World Bank 2007). EdInvest could be a place where the MoE could start working on Public-Private Partnerships (PPPs)\(^{31}\). The MoE will have to study well-researched success factors of PPPs (WEF 2006; AED 2006) and if reasonably planned, PPPs could be beneficial for the effective implementation of the six recommendations provided above.

Randomised experiments need to be conducted to try out different options proposed in this paper and to evaluate their relative benefits in terms of gender gap elimination in Mozambican primary schools. Research shows (Glewwe & Kremer 2005) that randomised evaluations can be quite different from estimated effects in a retrospective framework, suggesting that omitted variable bias is a serious concern. Although randomised experiments are not the ideal strategy, potential sources of bias are well known and can be controlled (Glewwe & Kremer 2005). Randomised experiments require considerable resources. However, eventually they prove to be more cost-effective because policy-makers first try the new approach as an experiment and only having seen that it produces the desired effects can consider implementation on a larger scale. Research shows (Kremer 2003) that randomised experiments are much cheaper than ineffective policies.

After having completed a series of randomised experiments the complex decision will concern which combination of statistically significant inputs to select. In order to estimate the most cost-effective and cost-efficient models of gender parity policy mix, the MoE will need to calculate all possible scenarios of raising marginal benefits by increasing the marginal costs associated with different policies. The statistical analysis will have to be done by using the results of randomised experiments, thus, relative and total payoffs of different policies will have to be estimated.

It is important to understand, however, that close monitoring is an indispensable component of any policy mix during the implementation phase because “policies cannot

\(^{31}\) It is the education investment information facility of the WBG, a forum for individuals, corporations and other institutions interested in education in developing countries. EdInvest provides information for making private investment possible on a global scale (IFC 2007).
dictate outcomes. Outcomes will depend on responses to policies” (OECD 2001), and responses usually change at different phases of policy implementation. Therefore, policy-makers need to understand that monitoring during implementation is necessary to detect behaviours that may not be envisaged during the planning phase. Furthermore, they need to be ready to react to unexpected responses by making amendments to original strategies, if necessary.

**Conclusion**

It is clear that girls’ access and retention in primary education alone cannot create sufficient conditions for enabling women’s full participation in wider societal development. The learning itself as well as pedagogy should be gender-sensitive in order to empower girls and challenge gender discrimination. Additional research needs to be done to estimate existing situation in Mozambican schools in terms of gender-sensitive pedagogy/methodologies and curriculum. Gender equality in classroom treatment should be assessed and if there is the evidence concerning clearly differential treatment of girls and boys stemming from the curriculum and pedagogy, then quality-oriented compensatory policies will have to be adopted to eliminate such practices.

Moreover, broader socio-cultural policies need to be implemented which will facilitate changes in the mentality of people, so that they understand the need for the equal treatment of boys and girls. However, Mozambique lacks the resources for drastic across-the-board changes at the moment and starting with “smaller” and “easier” objectives of gender parity may prove to be more appropriate.

As discussed in the paper, deliberate efforts are required to eradicate the barriers to equal education opportunity for Mozambican girls. By making primary schooling socio-culturally acceptable and economically appealing to girls and their families, the MoE will be able to start fighting the causes of gender inequalities in education system. Consequently, the increase in girls’ demand for secondary education should follow. This is extremely important not only because of the development of Mozambican women and society in general but also because of the fact that the requirement to increase the
supply of qualified primary female teachers will only be satisfied if the secondary system is expanded. There will be a number of barriers to the expansion of the secondary system. However, the barriers to girls’ equality in secondary school would be less acute if the MoE ensures timely implementation of the right policies for the elimination of the gender gap in primary education.

Although fighting gender inequalities in primary school is a major developmental imperative, policy interventions that can be used to achieve the most cost-efficient and cost-effective results are not always straightforward. Randomised experiments are required to fully assess the costs and benefits of alternative policy mixtures. Only after the marginal cost-benefit analysis of the results of randomised experiments is done it should be possible to start country-wide reforms directed at the eradication of gender gap in primary schooling. However, it should be emphasised that even these “tested” policies will probably need some adaptation during the actual implementation. Besides this flexibility, successful implementation of gender-related policies will also require the systematic incorporation of gender issues into the MoE's planning process, as well as the regular compilation, analysis, and publication of educational data disaggregated by gender.

Bibliography


