

# Does Scholarship Scheme Contribute to Gender Parity in Female Education?

## The Case of Secondary Education in Bangladesh

### EST-CE QUE LE PROGRAMME DE BOURSES CONTRIBUE À LA PARITÉ DES SEXES DANS L'ÉDUCATION DES FILLES?

#### LE CAS DE L'ENSEIGNEMENT SECONDAIRE AU BANGLADESH

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**Abstract:** Gender parity in education plays an important role in socio-economic development of a country where the government policies and procedures are paramount factors for its sustainability. Although Bangladesh has been working to improve the female students enrolment at secondary education since its independence; the achievement is considered insignificant. Recently the country has introduced female secondary education enhancement policy to increase and ensure female students' enrolment. The paper has analysed the impact of this policy regarding the female secondary education in Bangladesh. Using secondary data, the paper analysed the policy-impacts through changes in the pattern and trend of female secondary student enrolment, the indices of gross enrolment ratio (GER), net enrolment ratio (NER) and net attendance rate (NAR). It also analysed gender disparity index (GDI) and gender parity index (GPI) in secondary education. The paper found that the undertaken policy has positively impacted on female secondary education in Bangladesh but the rate of drop-out and failed students is much higher for female than those for male which raises a question of the effectiveness of the policy. The government should formulate a complementary education policy to achieve desired quantity and quality female secondary education. The findings of the paper might be of interest for researchers, development practitioners and policy makers.

**Key words:** Gender; female; secondary education; education policy; Bangladesh

**Resumé:** La parité des sexes dans l'éducation joue un rôle important dans le développement socio-économique d'un pays où les politiques et procédures gouvernementales sont des facteurs primordiaux pour sa durabilité. Bien que le Bangladesh a travaillé à améliorer la scolarisation et l'enseignement secondaire des filles depuis son indépendance, les résultats ne sont pas très significatifs. Récemment, le pays a

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introduit une politique de l'amélioration de l'enseignement secondaire pour accroître et assurer la scolarisation des élèves de sexe féminin. Le document a analysé l'impact de cette politique concernant l'enseignement secondaire féminine au Bangladesh. En utilisant des données secondaires, l'article a analysé les impacts des politiques via des changements dans la structure, l'évolution de la scolarisation des élèves féminins dans l'enseignement secondaire, les indices de taux brut de scolarisation (TBS), le taux net de scolarisation (TNS) et le taux net de fréquentation (TNF). Il a également analysé l'indice des disparités des sexes (IDS) et l'indice de parité des sexes (IPS) dans l'enseignement secondaire. Le document a constaté que la politique menée a un impact positif sur l'enseignement secondaire des élèves féminins au Bangladesh, mais le taux de l'abandon et de l'échec scolaire est beaucoup plus élevé pour les filles que les garçons, ce qui soulève une question de l'efficacité de la politique. Le gouvernement devrait élaborer une politique de formation complémentaire pour obtenir la quantité et la qualité désirée de l'enseignement secondaire des élèves féminins. Les conclusions de l'étude pourrait être intéressantes pour les chercheurs, les praticiens du développement et des décideurs de politique.

**Mots-clés:** sexe; femmes; enseignement secondaire; politique de l'éducation; Bangladesh

## 1. INTRODUCTION

Gender parity in education has been identified as an important aspect of development policy in recent years. Bangladesh, like many developing countries, has been striving to archive gender parity in education since its independence in 1971 but the achievement is considered insignificant. This non-achievement is due to some socio-economic factors such as poor families prefer their children's to work instead of schooling; sons are preferred than daughters in terms of alternative options for education; etc.

Bangladesh is a poor country. Nearly 50 percent of the population lives in poverty of which 40 percent lives under the absolute poverty level (BSS 2007: 58). Female secondary education has a high opportunity cost in terms of forgone household works for poor families in Bangladesh. This is because of the fact that poor families depend partly for their livelihood on children's work. So there is a strong trade-off between education and work of children in poor families. Moreover, secondary education is not free in Bangladesh. It involves costs such as admission fee, tuition fee, examination fees, text books, stationery, uniform, transportation, and others costs (science laboratory, sports, recreation, etc.). Poor families can not afford the costly education for all of their children. Thus, they put preferential choice for male over female child education. Ahmed and Arends-Kuenning (2006) argued that persistent poverty kept generations of families away from sending their children to school and without education either because parents could not afford books and other materials, or because the children contribute to their families livelihoods.

Therefore, gender discrimination begins at home in Bangladesh. Parents have a natural and selfish selection to prefer education for male over female child due to socio-cultural and economic reasons. This selection is partly due to parents' poverty and illiteracy as well as their dependency on male children at their old age (ADB 2001:4). A daughter usually leaves parent's house after marriage and live with her husband's family. These socio-economic factors create gender discrimination in secondary education in Bangladesh. Gender disparity in secondary education has impacted female enrolment adversely and created a large gap between the number of male and female students. Realising the fact that gender neutral policy in secondary education is not neutral at all rather it is crowding out female students due to parents' preferential treatment for sons against daughters. To overcome these socio-economic constraints the government recently formulated female secondary education enhancement policy and started to implement it through female secondary stipend programmes (FSSP) in the mid 1990s with a view to increasing enrolment of female secondary students.

The main objective of this paper is to analyse the impact of female secondary education enhancement policy on female secondary education in Bangladesh. Using secondary data, the study analysed this policy-impact through changes in the pattern and trend of female secondary student enrolment and the indices of gross enrolment ratio (GER), net enrolment ratio (NER) and net attendance ratio (NAR). It has also analysed gender disparity index (GDI) and gender parity index (GPI) in secondary education.

In this paper, we have discussed the background of female education system in Bangladesh in section 2, female secondary stipend project in section 3 followed by conclusion in section 4.

## **2. BACKGROUND**

Many studies attempted to shed light on the female secondary education in Bangladesh. However, they are partial in nature of analytical context either analysing only the extend and scopes of policy measures (programmes and projects), or changes in female secondary student enrolment, or some indices related to student enrolment. Mahmud (2003) argued that FSSP significantly influenced female secondary enrolment but the programme would be unsustainable and uncertain due to its dependence on foreign donors. Parents may not continue to send their daughters to school if stipends are withdrawn. Raynor and Wesson (2006) concluded that the FSSP clearly impacted on increasing female students' enrolment. While the FSSP was widely-acclaimed as a model for achieving gender parity of enrolment; little was known of its impact beyond access to schools. Hove (2007) found that FSSP was instrumental in expanding the number of female student enrolment. However, without raising the number of teacher, the increased in enrolment resulted in overcrowding in classes six and seven. Moreover, FSSP could not ensure quality education thus resulting higher drop-out of female students than those of male students.

In order to support the Female Secondary Education Enhancement Policy (FSEEP), the government, donor countries, international development agencies and NGOs launched female secondary stipend programmes (FSSP) nation-wide. The programme targeted rural areas where female secondary student enrolment is very low. In the context of the FSSP, female secondary education is viewed as a means to improve the status of women in the society, curb population growth through late or delayed marriage, and enhance women capabilities of contribution to socio-economic development (Mahmud 2003: 3, Hove 2007: 1)

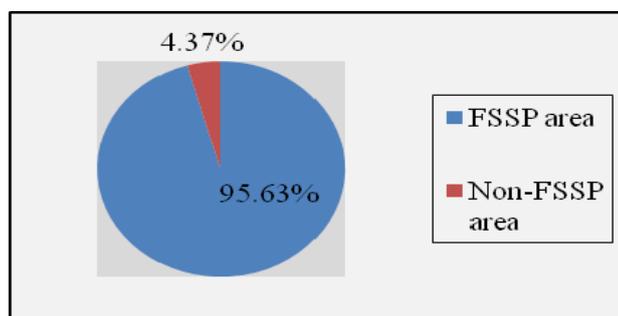
As mentioned in Mahmud (2003: 3) and Hove (2007: 15, 16), the main objectives of these projects were to:

- 1) enhance and retain female students in the secondary stage and thereby promote female education;
- 2) reduce population growth by motivating the stipend clientele group to refrain from marriage till completion of the SSC examination or until the attainment of 18 years;
- 3) increase involvement of women in socio economic development activities;
- 4) increase women's self-employment for poverty alleviation; and
- 5) assist in improving the status of women in society.

The Ministry of Education coordinated and implemented this nation-wide programme through four different projects during 1993-2002 (Mahmud 2003: 3; Hove 2007: 15, 16) as mentioned below.

- a. Female Secondary School Project (FSSP) in 270 upazilas (sub-districts) financed by the Government of Bangladesh;
- b. Female Secondary School Assistance Programme (FSSAP) covering 118 upazilas financed by the World Bank;
- c. Secondary Education Development Project (SEDP) covering 53 upazilas financed by Asian Development Bank; and
- d. Female Secondary Education Stipend Project (FSESP) covering 19 upazilas financed by Norwegian Agency for Development Co-operation (NORAD).

The FSSP is a massive programme. In 2002, it covered 460 upazila (sub-district) out of total 481 upazila in Bangladesh, covering more than 95 percent of rural areas of the country as shown in Figure 1.



**Figure 1: Proportion of Female Secondary Stipend Projects (FSSP) area and Non-FSSP area in 2002**  
Source: Prepared from Mahmud 2003 and Hover 2007

The FSSP provides monthly stipends, costs of text books and free tuition to beneficiaries as incentives to attend secondary schools, and also compensation for forgone household works due to female secondary students are attending school as shown in Table 1.

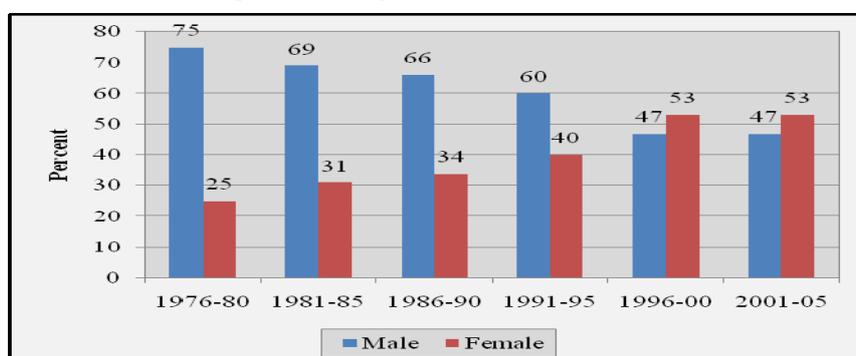
**Table 1: Stipend and other assistance to female secondary students: 2000 (in taka)**

Class	Monthly Stipend	Monthly Tuition Fee	Book (annual)
VI	25	15	
VII	30	15	
VIII	35	15	
IX	60	20	250
X	60	20	

Source: Table3, (Mahmud 2003: 6)

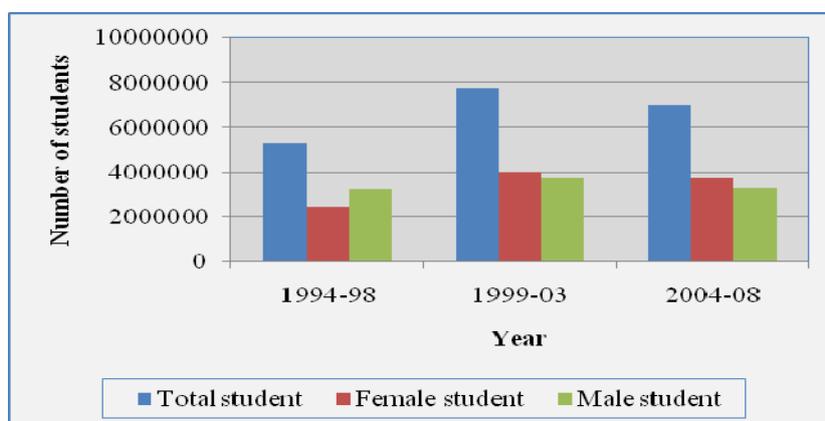
Note: US\$1= Taka 70 as on May 01, 2010

The FSSP has changed the pattern of women's participation in secondary education. It impacted on female secondary student enrolment positively. Comparing pre-FSSP (prior 1990) and post-FSSP (post 1990) scenarios in Figure 2, it is seen that the ratio of female secondary level students increased significantly during post-FSSP. During 1976-80, the average male and female secondary students' ratios were 75 and 25 percent respectively. Although the increase in the average ratio of female secondary students during pre-FSSP was slow; it got a momentum during 1990s and exceeded the average male student ratio during 1996-00. The average ratio of female student enrolment was 40 percent during 1991-95 and that was raised at 53 percent during 1996-00.



**Figure 2: Average ratio of male and female secondary students in Bangladesh: 1976-80 to 2001-05**  
Note: Data calculated from database, Ministry of Education, Bangladesh and Table 2 (Mahmud 2003)

In terms of total number of enrolment, the FSSP contributed to an increase in the number of female secondary student during post-FSSP period as shown in Figure 3. The total average number of female secondary students exceeded the total number of male students during 1999-03.



**Figure 3: Average number of secondary students enrolled: 1994-98 to 2004-08**

**Note:** Data calculated from database, Ministry of Education, Bangladesh and Table 2 (Mahmud 2003)

Total enrolment of female secondary students and the ratio of male and female secondary students reflect only a part of the scenarios. To see the complete picture, it is necessary to analyse the indices of gross enrolment ratio (GER), net enrolment ratio (NER) and net attendance rate (NAR). According to UNESCO (2004) and UNESCO (2010) these indices are defined as follows:

$$GER = \frac{x_g}{x_A} \times 100 \quad (1)$$

where  $x_g$  = total enrolment in secondary education, regardless of age; and

$x_A$  = total number of population in the official age group for secondary education.

$$NER = \frac{x_g}{x_A} \times 100 \quad (2)$$

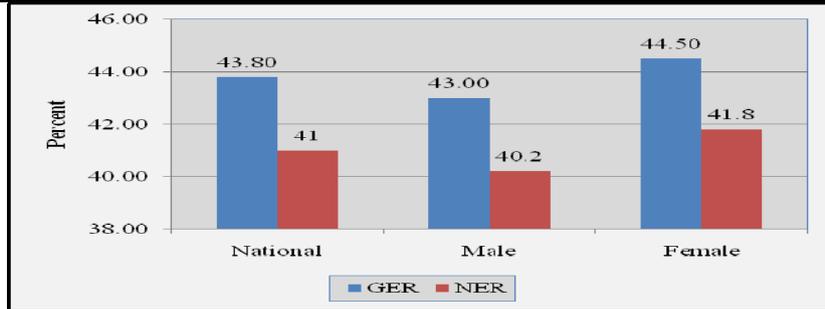
where  $x_g$  = total enrolment of the official age group for secondary education.

$$NAR = \frac{x_a}{x_A} \times 100 \quad (3)$$

where  $x_a$  = total number of students in the official age group for secondary education who attend secondary schools.

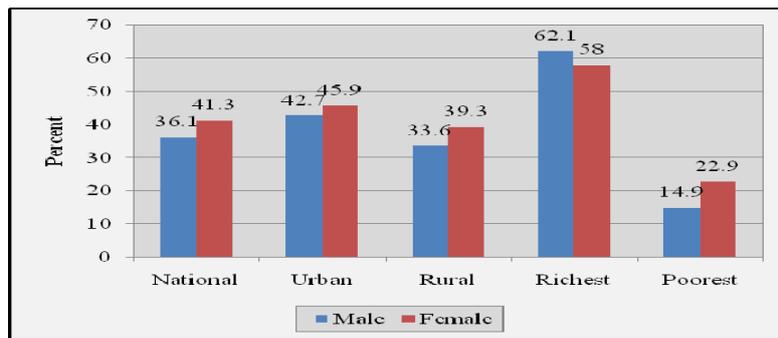
The GER explains the overall trend of student enrolment from both inside and outside of the age-group for secondary education. On the contrary, the NER only includes enrolment of students from the official age group for secondary education. The NAR explains the rate of attendance of students in the official age group for secondary education who are attending secondary schools.

In 2004, the GER for male and female students were 43 and 44.5 percent respectively as shown in Figure 4. This result indicates that total enrolment of female student from outside the range of age group for secondary education was higher than that of male students suggesting that many female students enrolled in secondary education should actually be in higher secondary students. This is because of the fact that students in the age group for primary education cannot enrol in secondary education due to minimum age restriction for a particular level of education in Bangladesh. The NER for female students was higher (41.8 percent) than that of male students (40.2 percent) implying that the rate of enrolment of female students within the age group for secondary education exceeded that rate for male students in 2004.



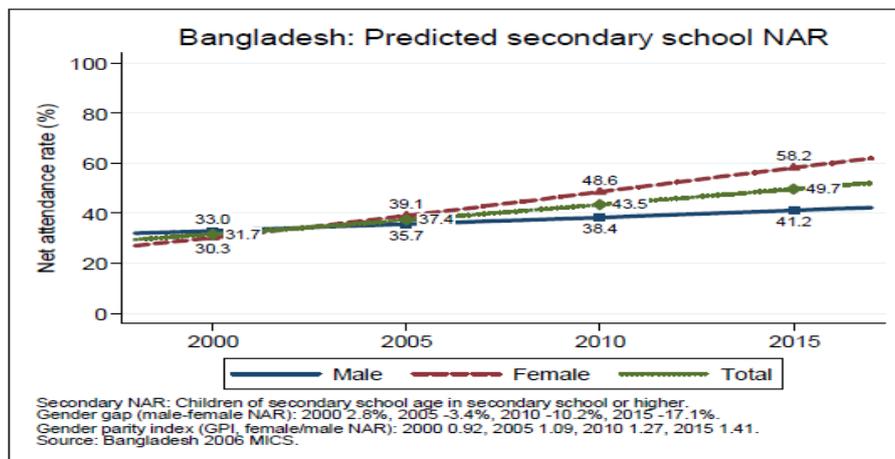
**Figure 4: Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) by Gender in 2004**  
 Source: UNICEF database, UNICEF 2008:3

The decomposition of the NAR into national, urban, rural, and the richest and the poorest depicted the scenarios of male and female secondary students attending in their own education level in 2006 is shown in Figure 5. It is seen from Figure 5 that except the richest group, the NAR for female secondary students was higher than that of male students suggesting that education enhancement policy positively impacted on the attendance of female students in secondary schools in 2006. The richest group is not included with FSSP. In the richest group the NAR for male was higher (62.5 percent) than that of female students (58 percent) in the same year. This result supports the hypothesis that education enhancement policy has influenced female secondary education significantly.



**Figure 5: Net Attendance Rate (NAR) by gender in 2006**  
 Source: UNICEF database, (UNICEF 2008: 6)

The projected values of NAR suggests that the net attendance rate of female will prevail over that of male students by 2015 due to the influence of FSSP as shown in Figure 6.

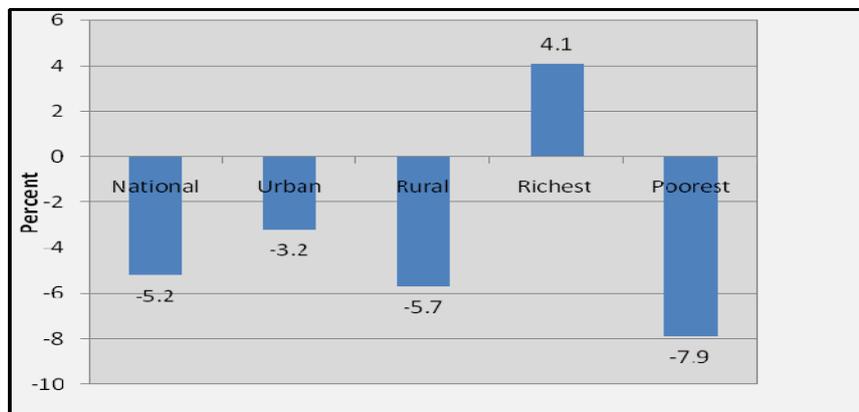


**Figure 6: Projected Secondary School NAR in Bangladesh by 2015**

Source: UNICEF statistics, (UNICEF 2008: 7)

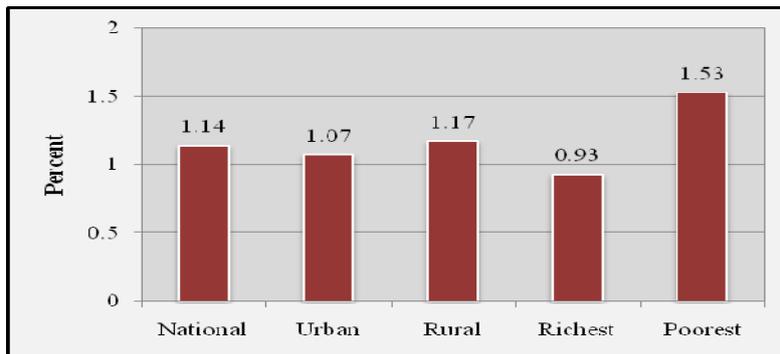
The projected trends of NAR indicate that the gaps between the rate of attendance of female and male students will be wider gradually showing that the education enhancement policy will continue to impact on the NAR of female secondary students by 2015.

Similarly, gender disparity index (GDI) and gender parity index (GPI) support the view that female education enhancement policy and FSSP impacted on female secondary education positively as expected. The GDI is a measure to illustrate whether overall access to education is being shared equally by male and female secondary students. As defined by UNICEF (2008: 6), GDI measures the differences between the ratios of NAR for male and female students in secondary education. The GDI equals to zero indicates no gender disparity, greater than zero reflects males have a higher access to education than females, and less than zero means females have greater access to education than males. In 2006, GDIs for national, urban, rural and poorest students were negative (less than zero) as shown in Figure 7. This situation indicates that FSSP created gender disparity in favour of female students giving them more access to education than male students of the secondary level.



**Figure 7: Gender Disparity Index (GDI) in Secondary Education: 2006**  
Source: UNICEF statistics, (UNICEF 2008: 6)

The gender parity index (GPI) measures the relative access to education of male and female students. As calculated by UNICEF (2008: 6), the GPI is a females' NAR to males' NAR ratio. The GPI equals to unity (one) reflects that there are equal male and female students in proportion to the secondary school-age population. Similarly, if the GPI is greater than unity reveals then there are more females than males in secondary education as the case of Bangladesh in 2006 except for the richest as shown in Figure 8.



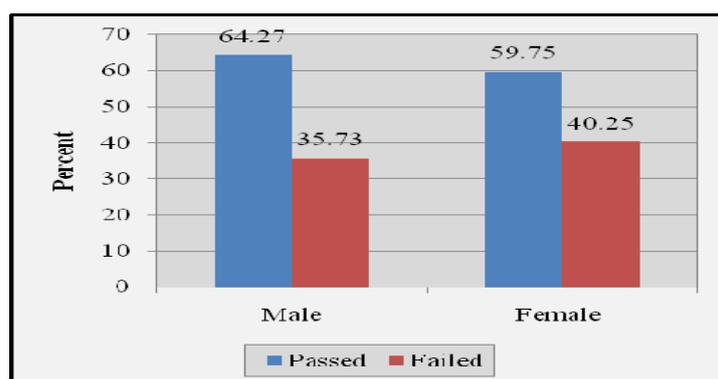
**Figure 8: Gender parity index (GPI) in secondary education in 2006**  
Source: UNICEF statistics, (UNICEF 2008: 5)

Therefore, the study suggests that female education enhancement policy in Bangladesh shaped the gender parity in favour of female secondary students. However, the values of the GER, NER and NAR for both male and female secondary students are quite low, less than 50 percent indicating that a large number

of potential secondary students neither enrolled nor attended schools. For instance, in 2004 the GER for the national level was 43.8 percent; means 56.2 percent of potential students were not enrolled in secondary education. Although FSSP boosted up the enrolment of female secondary students in terms of both total number and ratio of male and female students; considering the GER, 55.50 percent of potential female students were not enrolled in 2004. This figure is even higher (58.2 percent) for NER in the same year. This situation suggests that the education enhancement policy could not influence the majority of potential female secondary students, leaving them outside education.

Some studies were conducted to identify the reasons of why a reasonable part of potential female students are leaving outside of the scheme, and not attending school. One of the studies is Bangladesh education Sector Review (2002) (BEPS). This study found that the main reason of female students for not enrolling at all were such as the parents did not want their daughters go to school (42 percent); parents and children both were not interested in daughters' education (42 percent); parent could not meet educational expenses (34 percent); and trade-off between work and education of children (15 percent) (BEPS 2002:23). However, this study didn't consider some other socio-economic factors that might have influence on parents' decision regarding sending their daughters to school. Socio-economic factors, among others, include the household income, ownership of assets, educational background of parents, etc. The decision regarding sending daughters to school might be related to these factors.

Further, the FSSP could not ensure expected quality of education which was reflected by higher rate of drop-out and failure in examinations of females than that of male students as shown in Figure 9. In 2006, 64.27 percent of male students passed and 35.73 percent failed in the Secondary School Certificate (SSC) examination; whereas the figures of passed and failed female students were 59.75 and 40.25 percent respectively. This outcome indicates that government should formulate policies to ensure quality and balanced education.



**Figure 9: Ratio of passed and failed students by sex in secondary school certificate (SSC) examination in 2006**

Note: Data calculated from Raynor and Wesson (2006: 7)

In a study BEPS (2002:23) found that the reason for female students' drop-out from secondary education were manifolds such as parents could not meet educational expenses (31 percent), students got married during study (21 percent), parents did not want to continue female students' education due to high foregone opportunity cost- not contributing to livelihood and household works (20 percent), and other socio economic factors (28 percent).

It is observed from the above analysis that the impact of female education enhancement policy of Bangladesh is positive but not as significant as it was expected. The limitations of this policy, among others, are such as it has only facilitated financial incentive for girl students if they go to school whereas that for parents has been ignored. The policy has failed to include the importance of the fact that the parents are the decision makers on whether female children should be go to school or not. In a country like Bangladesh where poverty exists at a large scale in the society, successful implementation of such a policy requires positive incentive for parents too. The incentive might be employment opportunity or other source of income generating activities, in particular. The complimentary policy should consider these issues.

## CONCLUSION

The findings suggest that the female secondary education enhancement policy and FSSP have positively impacted on female secondary education. Comparing the pre-FSSP and post-FSSP scenarios, it is clear that both total number and ratio of female student in proportion of total secondary students increase significantly. The GER and NER support this argument. The NAR also reflects similar results. The GDI and GPI suggest that FSSP reshaped gender parity in favour of females in secondary education in Bangladesh. However, low levels of GDR, NER and NAR indicate that the female education enhancement policy could not influence the majority of potential students of the age group for secondary education. This study argues that secondary education has a high opportunity cost for parents in terms of foregone works of students that could be done otherwise to support their poor families. Other socio-economic factors (such as high education costs, tradition of early marriage etc.) crowd out potential students from enrolling in education or attending schools. The study has revealed that the policy could not ensure and enhance quality education as reflected by higher number failed or drop-out females than that of males. In addition, the female education enhancement policy the government should formulate and implement a complementary policy to get full benefit from FSSP. These policies may include motivation for education, employment guarantee for poor students who will achieve good results in SSC examination and education loans for poor students. Government should formulate a complimentary policy in which there will be, in addition to the incentive package for female students, incentive for parents too so that they are motivated to make positive decision towards sending their daughters to school.

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