# RESEARCH REPORT

# DEMOGRAPHIC DIVIDEND AND YOUTH LABOUR FORCE PARTICIPATION IN BANGLADESH

Rushidan Islam Rahman

**July 2014** 

BANGLADESH INSTITUTE OF DEVELOPMENT STUDIES

# Research Report No. 187

Rushidan Islam Rahman Research Director Bangladesh Institute of Development Studies Dhaka

# Published by

Bangladesh Institute of Development Studies E-17, Agargaon, Sher-e-Bangla Nagar G.P.O. Box No. 3854, Dhaka-1207, Bangladesh

Phone: 9143441-8 FAX: 880-2-8141722 Website: www.bids.org bd E-mail: publication@bids.org.bd

@ Copyright BIDS, July 2014

Price: Inland Foreign Tk. 60.00 US\$ 5

This Research Report has been set in Times New Roman by Ms. Amena Khatun, Steno-Typist-cum-Computer Operator BIDS, Printed in Bangladesh at Dot Printing & Packaging

# **CONTENTS**

		Page No.
Chapter 1:	Introduction	1
Chapter 2:	Growth of Youth Labour Force and Size of Potential Demographic Dividend	3
Chapter 3:	Youth Labour Force Under-enumeration : Missing Female Youth	4
Chapter 4:	Youth Labour Force Participation: Trends and Implication	5
Chapter 5:	Education of Youth Labour Force	7
Chapter 6:	Structural Change of Youth Employment	8
Chapter 7:	Unemployment Rate among Youth	10
Chapter 8:	Wage/Salary of Young and Adult Labour Force	12
Chapter 9:	Determinants of Youth Labour Force Participation	14
Chapter 10:	A Review of Programmes for Youth Employment and Suggestions for Future	22
References		26

# LIST OF TABLES AND FIGURES

		Page No.
<b>Tables</b>		
Table 2.1	Growth of Youth Population and Youth Labour Force	3
Table 3.1	Under-enumeration of Female Youth Population	4
Table 4.1	Labour Force Participation Rate among Youth and Older Population: 2000 to 2010	6
Table 4.2	LFPR among Male and Female Youth and Older Groups	6
Table 5.1	Level of Education of Youth Labour Force (15-29 years): 2000 to 2010	7
Table 6.1	Distribution of Youth Employment by Status in Employment: 2000 to 2010	8
Table 6.2	Distribution of Youth Employment by Broad Sector: 2006 to 2010	9
Table 6.3	Growth of Young Labour Force in Different Sector	9
Table 7.1	Unemployment Rate among Youth Labour Force: 2000 to 2010	10
Table 7.2	Unemployment Rate among Educated Youth	11
Table 8.1	Youth and Adult Wage per 8 Hour Day (taka): 2006, 2010	12
Table 8.2	Determinants of Wage of Youth Workers	13
Table 9.1	Determinants of Probability of Participation in Labour Force by Youth Population: Results of Logit Regression	19
Figures		1.7
Figure 9.1	Linkage between Poverty and Unskilled Labour Market	15
Figure 9.2	Linkage between Education and Labour Demand and Supply	16

# INTRODUCTION

The densely populated low-income countries of South Asia have experienced high rates of growth of labour force resulting from high population growth during the last few decades. Prospect of utilisation of the growing youth labour force provides an important basis for the recent optimism about accelerating future economic growth in these countries. The experiences of rapidly growing economies of Asia also illustrate cases of utilisation of demographic dividends for accelerating economic growth (Bloom and Williamson 1998, Phang 2003). This paper focuses on the "potential demographic dividend" in Bangladesh which takes the form of growing youth labour force.

In fact, the growing youth labour force has often been highlighted as the demographic dividend because this segment is likely to be the more dynamic component of the labour market. In recent years the shortage of skilled labour for the modern sectors is being felt and in this context youth labour force can play an important role.

Younger labour force requires separate analysis because this group faces distinct types of demand which is likely to be generated by separate sets of employers. Youth labour force may face additional vulnerability because of their age. The transition of school to workforce is often difficult, especially for youth from low-income families, who are likely to enter the labour force earlier than others.

Youth labour force did not receive adequate attention in the context of analysis of Bangladesh's labour market. The assumption that they enter the labour market smoothly through family employment contributed to the lack of attention in the past. In an economy dominated by family employment, the entry of youth labour force is considered as an automatic process where they are first engaged as unpaid workers in family farm/enterprise. But this option may no longer be available as the youth labour force receives education and aspires to move to new occupations and to paid jobs.

The objective of this paper is to examine whether a potential demographic dividend exists in Bangladesh. This will depend on the growth of youth labour force and the quality of young population. It will also depend on young persons' actual participation in the labour force and unemployment rates in this age group. This paper presents an analysis of recent changes in these indicators. The determinants of youth labour force participation rate can play an important role in the labour supply situation in the country. The paper therefore focuses on this aspect. Such analysis can provide guidance for policies for future utilisation of youth labour force. Although various policy papers including the Sixth Five-Year Plan of the Government of Bangladesh have highlighted the role of "Demographic Dividend," research studies on this issue and on youth labour supply have been lacking. Therefore, it is urgent to undertake an indepth study on the subject to identify the prospects of utilisation of the potential demographic dividend.

The paper has been organised as follows:

- Section 1 includes the background, objectives and rationale of the study and notes on data.
- Section 2 examines the presence of potential demographic dividend in Bangladesh by analysing data on youth population and youth labour force.
- Section 3 highlights a special feature of the youth population, i.e., underenumeration of female youth population.
- Section 4 discusses the age specific labour force participation rate (LFPR) and link between youth and old-age groups' labour force participation.
- Section 5 discusses the quality of youth labour force (YLF).
- Section 6 discusses the sector and type of youth employment.
- Section 7 examines wage difference among young and aged labour force.
- Section 8 focuses on youth unemployment.
- Section 9 presents multivariate analysis of determinants of youth LFPR.
- Section 10 discusses the current government policies of youth employment and makes suggestions for future policies.

#### **Notes on Data**

The present study is based on secondary data provided by National Sample Surveys, in particular by Bangladesh Labour Force Survey (LFS) Reports of various rounds. Other secondary sources used in this study include various publications of the Bangladesh Bureau of Statistics, Planning Commission and various government ministries.

For a more indepth analysis of the determinants of youth LFPR, unit record data from the latest round of the Labour Force Survey (conducted in 2010) have been reanalysed. Within the short duration of the study, primary data generation has not been possible. Nonetheless, the views of some young job aspirants and young female employees of readymade garment (RMG) sector have been sought through case studies and focus group discussion (FGD) sessions. Some sections draw upon previous research studies of the author and references have been provided in appropriate parts of the paper.

# GROWTH OF YOUTH LABOUR FORCE (YLF) AND SIZE OF POTENTIAL DEMOGRAPHIC DIVIDEND

Sizes of YLF (aged 15 to 29 years) were respectively 14.5 and 20.9 million in the years 2000 and 2010. During this period about 6.4 million youth have joined the labour force in Bangladesh. During the two sub-periods of 2000 to 2006 and 2006 to 2010, average annual growth of youth labour force has been 3.48 per cent and 4.09 per cent per year respectively (Table 2.1). In 2010, 36.9 per cent of total labour force came from the youth group (15 to 29 years), which is higher than the share in 2006. This can be considered as a demographic dividend (of course in a potential sense) because this has resulted mainly from the growth of population and only a small increment results from the rise of labour force participation rate, if there was no growth of youth population. Growth rate of youth population was 1.93 per cent and 3.46 per cent per annum during 2000 to 2006 and 2006 to 2010 respectively. LFPR among youth has risen from 51.7 per cent in 2006 to 53.2 per cent in 2010. Increment in youth labour force due to the rise of LFPR has been calculated as only 0.45 million. Increment due to population growth has been 2.65 million.

Bangladesh has reached the peak of the demographic dividend as population growth rate has significantly slowed down since the early 1990s (MoF, Various years). Taking 18 years as the time from birth to entry into labour force, the rate of entry of youth labour force is expected to decline from 2013. Thus the potential demographic dividend will continue to exist but grow at a decelerated pace. The increase in youth population and labour force is substantially large at present and therefore it will be possible to continue human capital development for a part of the youth while the rest of the youth can add to the increase in growth of current labour force. This may not, however, be possible after a couple of years when the growth of youth population and YLF will slow down.

Table 2.1 **Growth of Youth Population and Youth Labour Force** 

Indicator	2000	2006	2010
Youth Population (mill.)	30.6	34.3	39.3
Average growth of youth population (%) per year	-	1.92	3.46
Youth Labour force (mill.)	14.5	17.8	20.9
Average growth YLF (%) per year	-	3.48	4.09
LFPR	47.4	51.7	53.2
Youth's Share in total labour force (%)	38.1	35.8	36.9
Increment of YLF due to population increase			2.65
(between 2006 and 2010 in million)			
Increment of YLF due to rise of LFPR			0.45
(between 2006 and 2010 in million)			

Source: BBS (various years): Labour Force Survey.

# YOUTH LABOUR FORCE UNDER-ENUMERATION: MISSING FEMALE YOUTH

Proper utilisation of the potential demographic dividend requires a correct enumeration of its availability. So the question is whether we have counted the youth population correctly. It is well known that population census or large scale surveys suffer from age misreporting.

Under-enumeration of female population is often substantial in the developing countries of Asia and Bangladesh is no exception. Apart from overall under enumeration, this problem is more pervasive when one comes to certain special age groups: these are 10-14 years and 15 to 19 years aged women. Existing social taboo and violence against young women discourage reporting the presence of girls in these age groups.

On the basis of Labour Force Survey (LFS) 2006, sex ratio (number of male/number of female) in the three age groups 15-19, 20-24 and 25-29 is 1.31, .88 and .79 respectively, whereas the overall sex ratio is 104.13. In 2010, these were 1.10, .82 and .86 respectively.

The sex ratio and the number of male and female population in these age groups reveal an interesting feature. In 2010, male population in 15-19 age group exceeds female population by 687,000, whereas in 20-24 years age group female population exceeds by 1328,000 (Table 3.1). Such a large jump cannot be imagined to occur due to any demographic or related reasons. This clearly indicates age misreporting. Ages of women who were actually 15 to 19 yeas old are likely to have been reported as higher. This may be due to laws related to age bar on marriage and entry into labour force. The latter is even a more serious source of underestimation when it comes to labour force. In most surveys digit preference in age reporting is observed, but such large under-enumeration of young women (in comparison to men in this age group) reveals serious social bias against this age group. In 2006, under-enumeration of 15-19 aged women was even more serious. In this age group, there were 1,455 million more men than women.

Table 3.1 **Under-enumeration of Female Youth Population** 

	Share of Total Population (%)			2006			2010			
Age	20	006	2010		Total Population '(000)		Total Population '(000)			
	Male	Female	Male	Female	Male	Female	M/F	Male	Female	M/F
15 – 19	9.27	7.35	10.1	9.4	6,496	4,941	1.31	7,575	6,888	1.10
20 - 24	8.00	9.48	7.9	9.9	5,600	6,379	.88	5,929	7,257	.82
25 - 29	6.86	9.06	7.1	8.5	4,806	6,096	.79	5,353	6,251	.86

Source: Calculated from LFS 2006, 2010.

Such under-enumeration of female population and female labour force in the age group 15-19 can have serious adverse implications for appropriate policies and programmes for young women's health service provision, and employment generation.

# YOUTH LABOUR FORCE PARTICIPATION: TRENDS AND IMPLICATION

Youth LFPR is likely to depend on supply-side factors like school enrolment rate and its changes and environment for investment on human capital. In addition, demand-side forces may act in either direction. Discouragement hypothesis predicts a decline of youth labour force participation rate during economic downswing. In the discussion of youth employment crisis during recent years, a recurrent hypothesis is that the economic downswing caused by the financial crisis in different parts of the world leads to high unemployment rate which in turn discourages the young persons' entry into labour force.

Youth LFPR data for Bangladesh during 2000 to 2010 have been presented in Tables 4.1 and 4.2. Data show that youth labour force participation rate has risen between 2000 and 2010. Gender disaggregated data, however, show that the picture is not quite comfortable. Labour force participation rate of male and female youth shows that the former has gone through a decline while female labour force participation rate has increased (Table 3.4). The rises of female LFPR have been, at least partly, due to better enumeration in recent LFS. The decline of male youth's labour force participation rate supports the discouragement hypothesis mentioned above. Rising school enrolment alone cannot explain the decline, because the decline takes place in all three age groups, 15-19, 20-24 and 25-29.

# Age Specific LFPR

Next we proceed to compare the LFPR among youth and older population and the changes in the age groupwise LFPR.

Changes of LFPR among youth and older population may be linked through various socio-cultural features of our society. Before presenting the relevant data, it will be useful to highlight the related socio-cultural context.

In low income countries like Bangladesh, state provision of old age care or financial support and pension schemes for the aged are provided only by formal sector employers, especially government. For the rest of the aged population there is hardly any old age security. Society takes the pride that parents and elderly relatives are respected and cared for and the younger members of ones own family are in direct responsibility of such care. The distant relatives and society as a whole may oversee the matters and advise. A share of the actual provisioning and care may be borne by relatives and rich households.

Although these social relationships are supposed to be based on love, respect and social values, economic and financial aspects, however, are no less important. Parents spend their money and effort to raise the children, so it is natural to expect that when they are old the sons will look after the parents. In addition, all children inherit parents' properties. Thus, it may be expected that with rising employment

opportunities for younger persons, their LFPR will increase and as they take care of the aged, LFPR among the older groups will decline.

Changes of LFPR by five years age group show some interesting features. Data show that the above mentioned socio-cultural expectations are to some extent borne out in reality.

Table 4.1 **Labour Force Participation Rate among Youth and Older Population: 2000 to 2010** 

(Per cent)

Age (yrs.)	2000	2006	2010
15-19	41.66	41.66	39.37
20-24	47.04	53.03	56.70
25-29	54.22	60.84	66.61
30-34	60.80	64.66	70.80
35-39	63.70	66.22	72.81
40-44	66.60	68.19	72.82
45-49	66.00	68.82	74.28
50-54	60.60	66.80	56.07
55-59	62.40	62.90	51.91
60-64	48.80	55.80	45.03
65+	37.40	38.70	34.77

Source: BBS (various years): Labour Force Survey.

Table 4.2 **LFPR among Male and Female Youth and Older Groups** 

(Per cent)

Age (yrs.)		Male			Female			
	2000	2006	2010	2000	2006	2010		
15-19	55.85	62.88	48.44	27.35	13.76	29.40		
20-24	74.01	80.41	75.93	26.30	29.00	40.98		
25-29	91.30	95.28	92.19	27.08	33.69	44.71		
30-34	95.70	98.68	97.29	26.50	34.88	46.62		
35-39	98.20	98.81	98.34	25.70	34.82	47.62		
40-44	97.80	97.72	98.05	26.60	35.15	47.67		
45-49	97.60	97.75	97.37	23.40	32.62	46.24		

Source: BBS (various years): Labour Force Survey.

A comparison of data for 2000, 2006 and 2010 shows a decline of LFPR among 55 years and above age groups while LFPR among younger groups have risen.

The other feature revealed by age-specific participation rates is that labour force participation rates are highest among 40 to 50 years aged.

# **EDUCATION OF YOUTH LABOUR FORCE**

Prospect of YLF's contribution to growth depends on the quality of the youth labour force. Quality, reflected in education and skill development, determines the productivity of youth labour force and its contribution to the economy. Data on education of youth labour force have been presented below (Table 5.1). The share of youth labour force without any education has considerably declined and the shares with a few years' education have increased in recent years. The share with education above SSC level has not increased. These shares are likely to increase with a gestation gap and are expected to change within next five years or so. Studies reveal that there is significant inequality in access to education (Rahman 2009). Inequality between rural and urban areas and among income groups has been glaring and this may hamper the utilisation of youth labour force.

Table 5.1 **Level of Education of Youth Labour Force (15-29 years): 2000 to 2010** 

(Per cent)

Level of education	2000			2006			2010		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No schooling	38.6	34.3	49.4	27.75	25.87	33.17	26.9	27.4	25.9
class I–V	26.3	28.0	22.2	28.90	29.54	27.04	27.4	29.4	24.1
Class VI–VIII	15.0	16.8	10.4	17.56	18.06	16.12	19.2	18.5	20.5
Class IX–X	6.7	7.0	6.7	10.38	10.76	9.28	13.3	11.6	16.3
SSC/HSC & equivalent	9.4	9.6	9.1	11.72	12.06	11.75	10.7	10.3	11.5
Degree & above	4.0	4.3	3.2	3.44	3.47	3.37	2.5	2.8	1.7

Source: BBS (various years): Labour Force Survey.

### STRUCTURAL CHANGE OF YOUTH EMPLOYMENT

Sector and status (type) of employment have been used as indicators for assessment of change of structure of employment. Agriculture accounts for the dominant share of employment in Bangladesh. This is true for young workers as well as older ones. The labour market is characterised by preponderance of self and (unpaid) family employment.

Data on sector and status of employment among youth labour force have been shown in Tables 6.1 and 6.2. Agriculture accounts for 52 per cent of young workers. This share has risen substantially during 2006 to 2010. The share of industry has slightly increased, while the share of service has been on the decline. The changes in the sectoral pattern are consistent with the changes in status of employment described above. Within agriculture self/family employment predominates and therefore with a rising share of agriculture in youth employment, it is no surprise that the role of unpaid family employment has increased. Table 6.3 shows that during 2006 to 2010, the number of young women in agriculture increased from 2,562 to 5,068 thousand (by 98 per cent), while the increase for young male workers is only 316 thousand (6.8 per cent).

In fact, a large share of women in the labour force actually is engaged in family's livestock raising activities (Rahman 2013). Therefore, with rising LFPR of young women, the weight of agriculture and unpaid family employment is on the increase.

However, the growing share of youth labour force in agriculture cannot be solely attributed to women's growing involvement in family's agriculture and especially livestock unit. Data show that the share of male youth employed in agriculture has also risen during 2006 to 2010. In fact, both share and number of male youth employed in non-agriculture have declined during this period. Thus there has been a decline in the labour absorption capacity of the non-agricultural sectors. Otherwise, young workers show preference for jobs in non-farm sector which is evident from the qualitative observations (for example in Rahman 2007).

Table 6.1 **Distribution of Youth Employment by Status in Employment: 2000 to 2010** 

(Per cent)

	2000	2006	2010
Total	100.0	100.0	100.0
Regular paid employee	19.8	15.1	17.0
Employer	0.1	0.3	0.1
Self-employed	32.0	27.6	18.4
Unpaid family worker	21.7	32.2	39.6
Irregular paid worker (agri., non-agri.)	26.4	22.2	24.4
Domestic worker/maid servant	-	0.7	-
Paid/ unpaid apprentice	-	1.1	-
Others		0.8	-

Source: BBS (various years): Labour Force Survey.

Table 6.2 **Distribution of Youth Employment by Broad Sector: 2006 to 2010** 

(Number in '000)

Broad Sectors	2006	2010	% Change
Agriculture	7,170	10,057	40.2
	(43.9%)	(51.9%)	40.3
Industry	3,183	3,931	22.5
·	(19.5%)	(20.3%)	23.5
Service	5,958	5,361	10.1
	(36.5%)	(27.7%)	-10.1

Source: BBS (various years): Labour Force Survey.

Table 6.3 **Growth of Young Labour Force in Different Sector** 

Sector/Status	2010 ('000)		2006 ('000)		% of total youth (2010)		% change	
	Male	Female	Male	Female	Male	Female	Male	Female
Agriculture	4,924	5,068	4,608	2,562	40.3	71.0	6.8	98.0
Non-agriculture	7,286	2,065	7,611	1,530	59.7	29.0	-4.3	35.0

Source: LFS, various years.

# UNEMPLOYMENT RATE AMONG YOUTH

Youth labour force, who are new entrants in the labour force, are more likely to face unemployment than the older ones. Unemployment rate among 15 to 29 years old labour force is 7.5 per cent compared to 4.5 per cent for the entire labour force (Table 7.1). Higher unemployment rate among youth prevails not only in Bangladesh but in most other middle-income countries as well (Kapsos 2005).

In Bangladesh high rate of youth unemployment is actually due to higher rate of unemployment among educated youth. It is a matter of concern that unemployment rate is higher among educated youth compared to those without education (Table 7.2). This pattern to some extent reflects that the educated youth are from better-off families and can afford to remain unemployed. Nonetheless, it implies wastage of human capital. Educated unemployment tends to generate a vicious circle through its discouraging effect on future private investment on education. Young persons without education come from poorer households and can hardly afford to remain without employment. Unemployment rate is only 4.3 per cent in this group. These workers usually engage in the casual labour market where continuous dearth of employment opportunity is rather unusual. Unskilled and uneducated workers seeking casual jobs do not therefore face continuous unemployment. Nonetheless, for the same reason they face greater risk of underemployment.

Table 7.1 **Unemployment Rate among Youth Labour Force: 2000 to 2010** 

(Per cent)

Sex	2000	2006	2010
Male	9.5	7.2	6.8
Female	15.0	10.7	8.5
All	11.0	8.1	7.5

Source: BBS (various years): Labour Force Survey.

Unemployment rate among youth has slightly declined during 2006 to 2010. Both male and female youth labour force experienced the improvement (Table 7.1).

However, the rate of unemployment among youth labour force in Bangladesh (and also among aged labour force) appears to be incredibly low and it is lower than the current rate in many high-income economies. Therefore, a discussion of the factors contributing to such low rate is pertinent.

The very low unemployment rate has been largely due to the definition used by labour force surveys. The definitional problems arise from two sources. First, the question for identifying the unemployed is such that hardly anyone fits into that. It consists of two parts: whether one was without work for last one week and whether one was willing to work or was looking for work.

Being "without work" can be afforded only by persons from rich households. Moreover, only a fraction of an hour per day spent on income earning activities means that one has the status of "employed" and therefore the chances of being unemployed (without any work at all) are small if someone is serious about taking up some work.

Moreover, the scope of employment for small hours is very high in Bangladeshi labour market where self/family employment is predominant. To speak in more practical terms, people who want to engage in work can easily spend a few hours a week in taking care of family's livestock or kitchen garden. In urban areas, entry into low productive informal sector is easy.

The other factor which leads to under enumeration of unemployment of those not working is the form of the survey question which asks, "whether one was looking for job or trying to start self-employment." In the informal labour market one is not often involved in actual job search. When there is need, employers may approach them, especially in the case of farm work. Engagement in petty self-employment may not require any prolonged period of "trying to start," as mentioned in the survey instrument.

In addition, women who wish to work may not go for job search because of social inhibition. Due to the same reason, they may not reveal that they are willing to work. Whereas all the above factors lead to underestimation of unemployment rate, the intergroup comparison of adult and youth labour force and those with various levels of education (Tables 7.1 and 7.2) is possible because it can be assumed that underestimation affects all survey rounds similarly.

Table 7.2 **Unemployment Rate among Educated Youth** 

(Per cent)

Level of education	20	2010		06	2000		
	Male	Female	Male	Female	Male	Female	
No education	3.3	6.1	3.7	5.7	3.0	4.9	
I-V	5.1	7.1	4.1	7.7	7.7	15.6	
VI-VIII	7.4	8.1	6.8	13.0	8.0	23.2	
IX-X	10.8	10.2	9.7	16.7	25.6	39.0	
SSC, HSC Equivalent	15.4	13.9	16.9	21.3	23.0	39.8	
Degree & above	7.6	15.4	18.6	21.4	20.8	28.5	
All	6.8	8.5	7.2	10.7	9.5	15.0	

Source: BBS (various years): Labour Force Survey.

### WAGE/SALARY OF YOUNG AND ADULT LABOUR FORCE

Wage and salary of adult workers is expected to be higher because they have more experience and therefore productivity is likely to be higher. The differences of young and adult wage, as shown in Table 8.1, are not large. In 2010, youth labour force earned 17.6 per cent less than the aged labour force (30 years and above). The difference has risen during 2006 to 2010. In 2006, youth wage/salary of younger workers was 8 per cent lower. The difference between young and aged is highest in "community/personal services" sector where experience is likely to contribute more to productivity. The difference is low in construction and transport sectors (2010 data).

Table 8.1

Youth and Adult Wage per 8 Hour Day (taka): 2006, 2010

Sector	2006 (wage: taka/day)		
Sector	Age 15-29 years	Age 30+ years	
Agriculture	84.51	88.64	
Mining	73.30	89.31	
Manufacturing	80.59	92.51	
Construction	110.39	126.52	
Trade	102.92	107.97	
Hotel & Restaurant	93.76	170.56	
Transport	94.31	121.44	
Com. & personal services	97.00	124.73	
Household service	89.30	74.78	
All Sector	89.97	97.67	
	2010 (wage: taka/day)		
	Age 15-29 years	Age 30+ years	
Agriculture	190.52	213.24	
Mining	244.85	254.98	
Manufacturing	226.01	270.25	
Construction	199.22	224.76	
Trade	245.32	297.93	
Hotel & Restaurant	197.39	258.74	
Transport	198.99	221.18	
Com. & personal services	355.54	438.38	
Household service	240.13	260.62	
All Sector	220.02	266.91	

Source: BBS (2006): Labour Force Survey.

Table 8.2 presents the results of the equation on determinants of young workers' wage/salary. The equation reveals expected results. Age has a highly significant coefficient, implying that very young workers enter into low paid jobs. This holds even after controlling for education and locational factors. All human capital variables have positive and significant coefficients. Wages are significantly lower in Khulna, Rajshahi and Rangpur, which are the poorer regions.

Table 8.2 **Determinants of Wage of Youth Workers** 

Explanatory variables	Standardized coefficient	t
Constant	-	144.88***
Age of workers	.10	11.00***
Sex of workers	02	-2.47**
Primary dummy	.03	3.20***
Secondary dummy	.07	7.18***
SSC/HSC dummy	.10	11.38***
BA/MA dummy	.14	16.02***
Technical education dummy	.03	4.22***
Regular salaried employee dummy	.17	18.22***
Public dummy	.06	6.90***
Own land (decimal)	.04	4.34***
Head dummy	.01	1.33
Whether received any training	.04	4.32***
Barisal dummy	.06	6.67***
Chittagong dummy	01	-1.40
Khulna dummy	12	-12.64***
Rajshahi dummy	06	-6.40***
Rangpur dummy	11	-11.74***
Sylhet dummy	.05	5.78***
Area dummy	.01	1.27
Sample size: 13,790		
Value of F: 128.3***		
Adjusted R-square: 0.15		

Source: Estimated on the basis of unit records of LFS 2010.

**Note:** \*\*\*, \*\* and \* denote significant at .00, .05, .10 probability level respectively.

# DETERMINANTS OF YOUTH LABOUR FORCE PARTICIPATION

According to the familiar neo-classical theory, labour supply decision and labour force participation (LFP) depend on the dichotomous choice between labour (or leisure) and income (or goods). The labour leisure choice theory predicts that labour supply increases with a rise of wage (or return from labour) due to substitution effect since opportunity cost of labour rises. Simultaneously an income effect will be at work and if leisure is a normal good, its demand will rise and wage increase will also induce a negative effect on labour supply.

Drastic modifications to the basic neo-classical theory have been suggested by Becker (1965) and Mincer (1962). These developments have taken place especially in the context of female labour supply. Beckerian theory expanded the dichotomy between work and leisure choice to develop the pioneering concept of trichotomy of choice involving housework, leisure and market work. Many other extensions and alternative formulations of determinants of labour supply have taken place during the last few decades.

In the empirical analysis, the choices are examined through the estimation of labour force participation equation. The dependent variable is dichotomous and independent variables are included to represent the factors which may influence attitude and priorities related to work, housework and leisure.

In the following empirical analysis, separate logit regression equations have been estimated to examine the factors influencing the probability of young men's and women's participation in labour force. Some of the hypotheses related to the determinants of participation have been elaborated below.

Empirical estimation of labour force participation equations should take into account the hypotheses based on the assumption of competitively functioning labour market as well as the non-competitive features. When there is an imbalance in the labour market in the form of inadequate labour demand, the demand-side factors may also influence the participation in the labour force. Moreover, many of the determinants of labour force participation may work from both supply and demand side, which will be elaborated as we move on to the discussion of the hypotheses.

#### Youth LFPR and Household Assets

Lack of asset and family poverty is expected to act as a push factor in the youth labour market. A positive relationship between poverty, assetlessness and youth LFPR is likely to be observed. The expected linkages discussed above can be relevant for both male and female youth population. The prevailing notion of income (or asset or unearned income) effect in a labour supply function focuses on this relationship. This notion considers it from the supply side by looking at the net impact of high income/asset of a family, through income and substitution effect. In

Bangladesh and especially in the case of self/family employment, the links may also operate from demand side of the labour market.

Lower productivity

Lower wage

More demand for unskilled labour

More supply of unskilled labour

Figure 9.1 **Linkage between Poverty and Unskilled Labour Market** 

Poverty may particularly raise LFPR among young women. It is well known that conservatism can be an important impediment to female labour force participation in Bangladesh. Women from poorer families may, however, be in a desperate situation and would be willing to break the social barrier if it gives a decent earning. Adverse social stigma is more prevalent among people from richer households.

The demand side can, however, modify the above relationships. Employment, especially salaried employment, in formal sector, needs some minimum education. Youth population from poorer households usually enter labour market without any school education. As a result, they will not have access to such employment. Therefore, they resort only to the inferior categories of employment, namely casual and daily basis employment.

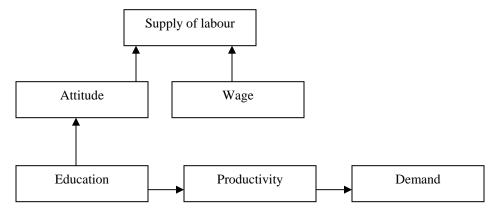
Here a major concern is that the relationship between poverty and youth labour supply is that usually these two reinforce each other. Figure 9.2 shows how these linkages operate. The causality flows in both directions. Poverty can also act as a negative force on wage. This can be attributed to lower productivity and lower bargaining power of the poorer workers, which in turn leads to lower wage.

In the present analysis, the relationship between poverty and youth LFPR has been assessed on the basis of LFS 2010 data. However, LFS does not provide expenditure/income data. Therefore, the groups based on poverty line cannot be directly identified. A proxy indicator of poverty has been used here. This is based on land and non-land asset ownership and four groups have been identified. There are no land/non-land asset (base group), no land but some non-land asset, small land and non-land asset and large land and non-land asset.

#### Impact of Education on Youth LFPR

Labour force participation of educated youth is expected to depend on both the supply and demand side forces. From the supply side a positive relationship is expected between education and youth's labour force participation. Educated youth's families have invested both time and money on education of the children. To reap a return from such investment, they are expected to join labour market. Education may raise young women's labour force participation. Prevailing hypotheses related to labour force participation of women in developing countries emphasize the positive role of education. Education results in change of individual's attitude. Educated society has more liberal views about women's employment. Education raises their women's employability in enterprises using modern technology and this will lead to a rise in the level of salary/wage. Higher earnings prospect, in turn, will result in greater acceptability of women's work. However, a variety of social and attitudinal factors may interact on the demand side and the impact of education on female LFPR may get modified.

Figure 9.2 Linkage between Education and Labour Demand and Supply



Employment generation for educated youth depends on the demand side and, therefore, on the pace of growth of the modern sectors of the economy. Quality of education can also be important when demand side is being considered. Employers will be enthusiastic about employing educated youth only if they are certain about higher productivity of such workers. If secondary education does not result in significantly higher level of learning than the primary educated ones, the employers will prefer the latter because those with more years of education usually expect higher salary and will be less docile. Therefore, secondary or higher education may have adverse impact on the prospects of employment because of quality factors, both actual and as perceived by employers.

With rise of the share of educated labour force, enterprises are likely to be able to make use of such labour only if they make investment in capital intensive sectors which use advanced technology and therefore require educated employees. Uncertainty about quality of education may discourage such investment and reduce the possibility of employment of educated youth.

16

#### Personal and Household Characteristics

Age can have important positive impact on youth LFPR, especially because employers may not prefer very young (15-20 years) workers. Age and education will also serve as proxy variables for wage. Therefore, wage has not been included as an independent variable. Moreover, the vast majority of labour force in Bangladesh are self-employed or unpaid family workers for whom market wage data is not relevant.

Married women in 15-29 years age group will have less chances of joining labour force compared to unmarried counterparts because marriage reduces the independence to move to a location away from home. It is likely to discourage paid employment, while chances of self/family employment may not be different. For young men, marriage may have a positive influence through the pressure for generating income for family's maintenance.

Children can have discouraging effect on LFPR of young women. Small child (aged less than 5 years) means larger burden of household chores and higher marginal utility of time spent on child care which is likely to reduce female labour supply. This variable can have a reverse impact through push factors arising from higher subsistence needs of the family. The influence of having a child is likely to be positive on male labour force participation because only push factor is likely to work in this case.

Whether a person is head of household has been included as an independent variable in the present analysis. Headship means a responsibility for family maintenance and is expected to raise LFPR. Presence of a male head may discourage women's labour force participation, as Bangladesh society has a strong patriarchal tradition. Women's labour force participation is expected to be influenced by the head of household's views and attitude and therefore head's education has been included as a proxy for attitude.

#### Impact of Regional Difference and Location

On the demand side, urban and rural areas may differ in terms of opportunities of employment. Urban areas are likely to offer more opportunities of paid employment. When people migrate from rural to urban areas, they do so after contacts have been established for getting jobs. Therefore, the higher labour force participation (of young men and women) in urban areas is not only a reflection of supply side but is also due to the interplay of the migration process, demand and labour market situation. Rural areas are likely to have higher scope of self employment. Impact on LFPR can therefore be in either direction. A dummy for urban location has been included in the equation.

Regional (defined by administrative Divisions) differences similarly work from both demand and supply in the labour market. It works in different ways in the male and female labour market.

A few regions in Bangladesh are more conservative than others. Conservatism negatively affects women's education and thus lowers their employability. Divisions in the eastern part show this feature. These areas are likely to have lower female

LFPR (Chittagong, Sylhet). Khulna Division has specialised in shrimp culture and export-oriented frozen shrimp industry employs young men and women. The northern regions of Rajshahi and Rangpur have higher poverty incidence compared to other Divisions and this push factor may result in higher chances of youth labour force participation.

### Results of Logistic Regression

For an understanding of the determinants of youth LFP, logistic regressions have been estimated. Estimation has been done on the basis of data from the LFS 2010. All individuals aged 15 and above and not currently studying in any educational institutions have been included in the sample. A total of 58,297 females and 57,525 males constitute the sample. The dependent variable in dichotomous forms is as follows: Labour force participation (LFP): 1 = participant, 0 = non-participant.

Independent variables have been chosen on the basis of the analytical framework presented above. Main results have been described below.

The equations have been estimated twice with the sample of 15 to 29 years aged and for those who are not currently student. Most studies on LFP equations use samples without students (Klasen & Pieters 2012). The reason is that those who are not engaged in studies have free choice of labour force participation. Those who are engaged in studies have taken the decision a few years ago (and possibly on the basis of guardian's decision) and therefore the inclusion of only non-students is pertinent for the current choice of participation in the labour force.

First we look at the equation for men. The results are in line with expectations.

Age has a positive and significant coefficient. Coefficients of dummy for being "currently married" and dummy for having small child are insignificant (and negative).

Education and asset are the analytically important explanatory variables. Dummies for various levels of asset (on a rising scale) have significantly negative impact, with highest value for the largest asset group. It implies that asset owning households' young person's can opt for not being in the labor force.

Young men with education have higher probability of participation in labour force compared to those without education. All four dummies for various levels of education have positive and significant coefficients.

Years of education of head has a negative and significant coefficient. The impact possibly works through higher earnings of the head and his preference that the young persons in the household wait for better job. Number of older dependents (above age 55) has been included as an explanatory variable. It does not lead to higher probability of youth labour force participation. Its coefficient is insignificant (and negative). Effect of religion is also insignificant.

Table 9.1 **Determinants of Probability of Participation in Labour Force by Youth Population: Results of Logit Regression** 

Dependent Variable: P/1-P where P is the Probability of Participation

Explanatory variables	Coefficient & Sig.		
Explanatory variables	Male	Female	
Age	.1532***	.0283***	
Married dummy	1005	6332***	
No. of children <5 years	0184	0007	
Barisal dummy	0194	0384	
Chittagong dummy	.1107	2867***	
Khulna dummy	.1296	1014**	
Rajshahi dummy	1666**	.0061	
Rangpur dummy	.3771***	.1821***	
Sylhet dummy	.2923***	1737***	
No land, other asset	0992*	.2036***	
Small land owned	1234**	.1942***	
Larger land	-1.0535***	4829*	
Urban dummy	0496	1999***	
Education dummy 2 (Primary)	.5995***	1214**	
Education dummy 3 (Secondary)	.7399***	3154**	
Education dummy 4 (above secondary)	.3425	4305**	
Education dummy 5 (technical)	.4441	5665***	
Head education years	0806	.0633***	
Whether head of household?	1.1257***	6560***	
Religion dummy	0154****	2923***	
No. of non earner 55 +	0734*	3049***	
Constant	-1.1987***	2191**	
-2 loglikelihood	11597.0***	29361.6	
Per cent of correct prediction	89.3	58.5	
Sample size (youth aged 15-29 years and not studying)	18649	21910	

Source: Estimated from unit records of LFS, 2010.

Note: \*\*\*, \*\* and \* denote significant at .00, .05 and .10 probability respectively.

Among the young men, those in the role of head of household have higher probability of labour force participation.

Among the Division dummies, Rajshahi, Rangpur and Sylhet show higher chances of youth labour force participation. The first two are possibly due to push factor, the areas being poorer than the base (Dhaka). Sylhet coefficient is possibly the result of adult out migration which means that young persons take charge of family's economic activities.

The equation has high value of -2 log likelihood (11597.0) and it gives 89.3% correct predictions.

The equation for female youth gives different sign and significance of coefficients. Age has a positive coefficient similar to the male equation. But the status of being currently married has a negative and significant influence. Having small child has a negative but insignificant coefficient. Among the Divisions,

Chittagong and Sylhet, the two conservative ones, have significant negative coefficients.

Possession of small amount of asset has positive impact (compared to base of no asset). For the highest asset group, the coefficient is again negative and significant, possibly reflecting the impact of high social status.

The coefficient of urban dummy is negative and significant. This is possibly because most women get employment in family's poultry/livestock raising, which is more common in rural areas. The fact that education has negative influence on women's labour force participation is also possibly due to the scope of family employment. Educated women are less likely to participate in family farm or livestock unit. Here labour force participation has been estimated taking into account both hired and family employment. Among other variables, religion (being a Non-Muslim is base, value of zero) has a significant negative impact that is non-Muslims have higher probability of participation.

The dependency burden of aged (number of non-earning members above age 55) has a negative and significant impact. This actually implies that women would then have higher demand for their time for care of the aged. The female equation has slightly lower value of log likelihood (Table 8.2) and lower percentage of correct predictions compared to the male equation.

### Challenges Faced by Youth Labour Force<sup>1</sup>

On the basis of the quantitative analysis and the qualitative findings of previous studies of the author, major challenges faced by the youth labour force have been summarised in the following paragraphs.

# (a) Type of Employment

The largest share of youth labour force is engaged in agriculture sector. The growth of young labour force and especially young female labour force has taken place in agriculture. This does not tally with the expectation that young workers demonstrate more dynamism and are likely to be employed in modern dynamic sectors. Moreover, the large share of young workers is employed as unpaid family workers. Regular employment consists mostly of jobs in export-oriented RMG sector which is characterised by low wage, long hours of work and adverse working condition. Safety issues of RMG workers came to the forefront after the recent industrial accidents. Improvement of working condition in RMG is thus critically linked to good jobs for young.

#### (b) Wage

As revealed by data presented in previous sections, wage of young workers is lower than the aged workers but the difference is not glaring.

A special aspect of low wage is the fact that the wage for new entrants in the labour market is particularly low. For example, in RMG sector jobs, the lowest strata

<sup>&</sup>lt;sup>1</sup> This sub-section and the following section draws from author's previous studies, especially Rahman (2004) and Rahman and Bhuiyan (2012).

starts at around taka 3,000 per month. With overtime, most of them will get around 6,000 taka, which is barely sufficient to meet the food, housing and other essential expenses. Case studies of young workers show that young unmarried boys who live with parents are hardly ready to accept a regular job (a messenger peon's job at an office was offered to a young person covered by a study) at a salary of 6,000 to 7,000 taka per month.

In this respect, young women who face economic hardship come forward to take up such jobs, Rahman's (2013) study presented case studies of young women who have accepted jobs in RMG because of economic hardship in the family.

FGD sessions with RMG workers revealed that most young women taking up jobs in this sector are not living with husband. A large number of the workers are unmarried or separated. This is in conformity with the result that in the quantitative analysis married women's dummy has a negative impact on chances of participation in labour force. The dummy for having small child have similar negative impact. In the FGD sessions, women described the difficulties in arranging childcare services. Moreover, the informal types of child care usually fall short of desired quality.

### (c) Job Search, Training Facilities and Aspirations for Overseas Jobs

Young male workers reported difficulties and lack of knowledge about the job search process, as industrial workforce and in office jobs. In this respect, those who have not completed SSC level education face a more serious challenge. This group usually does not have links with persons who can informally connect them with jobs. In contrast, case studies of persons who have completed SSC/HSC with good grades can find out links for job search. Moreover, those with a few years of schooling are not willing to take up paid employment in agriculture.

Many of the school leavers aspire to take up overseas employment. While some of them may succeed, some may be trapped in debt due to fraudulent behaviour of middlemen. Lack of knowledge and experience coupled with unrealistic expectations makes them vulnerable in the hands of unscrupulous middlemen/agents.

Some of the school leavers were asked whether they wish to take up vocational training and whether they have access to information about availability of training facilities. Young school leavers do not have any information on such facilities. They access such information through others who received training. In the urban areas private training institutions are cropping up and information flow is better. In remote rural areas, spread of information is slower.

# A REVIEW OF PROGRAMMES FOR YOUTH EMPLOYMENT AND SUGGESTIONS FOR FUTURE

Bangladesh government and the relevant ministries have from time to time reiterated their commitment to development of young workforce. It is expected that such commitment will be followed up by adoption of relevant programmes and policies.

Relevant policies and programmes may be categorised into three different groups:

- i) Employment generation targeted to youth
- ii) Programmes for increasing the employability of youth labour force
- iii) Programmes to connect youth labour force with jobs and to help the job search process through provision of information and training.

Actual employment generation may not be cost effectively done by government. Public schemes may not be in a position to generate employment for the huge addition to youth labour force every year. Government schemes may be adopted only as demonstration of good practices or as part of social safety net schemes. Social protection schemes for unemployed and disadvantaged youth may come in this context. Private sector will continue to generate the major share of incremental employment. In the following discussion the existing policy documents are examined to highlight the policies for the benefit of youth labour force and to provide suggestions for improvement.

#### Sixth Five Year-Plan and Youth Employment Strategy

One of the policy documents which requires an examination in this context is the Sixth Five Year-Plan of Bangladesh. In this document employment generation has been viewed as a strategy of accelerated growth as well as for reduction of poverty. In the macro policy and strategy part such emphasis has been found in several places. For example, "The employment challenge in Bangladesh is to create high productivity, high earning good jobs (p.45)." "Encouraging higher female participation in labour force and enabling them to undertake gainful jobs and stay in the labour market will contribute to higher growth" (p.46). This calls for indicating changes in the structure of employment through withdrawal of labour from agriculture and informal sectors to higher productivity jobs in manufacturing and formal service sector. "The employment responsiveness of growth in manufacturing needs to increase to absorb more labour. Average productivity of all sectors, especially agriculture, has to grow to provide better returns to labour" (Planning Commission 2011:46).

This may be interpreted as awareness about youthfulness of the labour force and that the Employment objectives and strategies are the means for the involvement of youth in the economic growth.

SFYP provides some general guidelines for employment expansion. These guidelines require expansion and should be translated into specific policies targeting the youth and older age groups separately.

#### Utilisation of the Demographic Dividend

Although the SFYP document highlights the role of "demographic dividend" and youth labour in the process of economic growth, in the actual strategy formulation context, employment has been viewed in an aggregate sense. The disaggregation of targets and strategies for youth and older labour force is somewhat absent in the document. As discussed earlier, Bangladesh possesses a sizeable "demographic dividend" in the form of youth labour force. Strategies for effective use of this potential is expected to come from SFYP and some guidelines are desirable even if separate target setting for age-sex groups or attempts for influencing the labour market may distort incentives and may not be practicable in a market economy.

Implementation of the employment policy of SFYP with distinct emphasis on youth employment should be considered. This exercise should be, as far as possible, integrated with the "Youth Development Policy 2003." In addition, the strategies must be consistent with SFYP's sectoral priorities and projections of sectoral employment. These can be further decomposed into youth employment projections. The integration of policies from separate policy documents and further refinements in existing projections can be done on the basis of the projections which are already available.

Youth employment implications of the suggested growth and job creation strategy in the Sixth Five-Year Plan document need elaboration. There can be a "medium term review" of the Plan and this may spell out these implications in disaggregated form. Government's emphasis on youth employment and efforts to build up good practices through projects and programme support should focus on "policy integration" aspect. Future actions on this front should take the form of a "monitoring mechanism" which may be engaged in monitoring consistency of policy and programmes of youth employment coming from various directions as well as the implementations and impacts of programmes.

#### National Youth Policy (NYP) 2003, and National Labour Policy (NLP) 2012

Bangladesh has been successful in adopting a National Youth Policy as early as in 2003. Therefore, it may be appropriate to review the document in view of the major changes in the national and international scenario during the ten year period following its finalisation.

A number of objectives have been listed in NYP which relate to employment. However, the quality of employment (in terms of wage, security and terms of employment, etc.) has not received proper attention in the employment part of the document.

Some modification and revision of NYP is necessary in view of the fact that the policy suggestions may not have always guided actual programme adoption by Ministry of Youth & Sports (MoYS) as well as by other ministries. The problems experienced in coordinating youth employment and other programmes imply that there is a need for review of the document and employment issue can be taken into account during such review.

Recently, Ministry of Labour & Employment (MoLE) has prepared the draft National Labour Policy (NLP). The extent of overlap of the NLP and NYP should receive attention. Government officials as well as participants of "National Conference on Youth Employment" (of April 8, 2012, organised by MoYS and ILO) highlighted the need for such consistency and coordination, which was viewed as week.

In 2012 the NLP has been formulated. The National Labour Policy like other policy documents incorporates all the major desired policy options. The objectives stated in the NLP include measures for expansion of employment and improvement of employability of the workforce. A major objective of the Policy is "improvement of dignity of labour and working conditions and establishment of workers' rights" and "creation of suitable employment opportunity for everyone in the active labour force, according to their qualification."

NLP has given adequate attention to skill generation and training, which can enhance the quality of workers and their employability. It has highlighted the role of government in ensuring fair wages of workers.

This policy document (NLP) has, however, looked at employment only in aggregate terms. There is no separate focus on youth and older labour force. Nonetheless, the policies in relation to training and skill development will almost entirely apply to the youth labour force, even if it is not spelt out. Similarly, the policies related to overseas employment will actually help the youth labour force since the overwhelming majority (70 to 80 per cent) of first time migrants are 18 to 35 years old. There should be explicit mention that these aspects are parts of youth employment related aspects.

Given the distinct features of the youth labour force, it is required that labour related policies address the youth labour force separately. This may be done through interaction with MYS so that NLP and NYP are not contradictory but complementary in all respects.

Following suggestions are being offered to supplement the existing provisions of NYP (2003) and NLP (2012):

- The NYP puts proper attention to employment generation. However, the
  productivity aspect and income from such employment received inadequate
  emphasis. Removal of underemployment and work sharing in family
  employment can overcome such shortcomings to some extent. Supply of
  credit, training and inputs for self-employment can help in this endeavour.
- It has been observed that both NYP 2003 and NLP 2012 emphasize generation of self employment. NYP should also emphasize the expansion of opportunities for paid jobs. In this context, appropriate policies of apprenticeship and skill development for school drop outs should be adopted.
- Youth labour force (YLF) have inadequate information about job market, training and self-employment opportunities and the risks in each type of job. Both private and government programmes should work towards improvement in these areas.

#### REFERENCES

- Backer, G. S. 1964. *Human Capital*, 2<sup>nd</sup> ed. NY: National Bureau of Economic Research, University of Chicago Press.
- Bangladesh Bureau of Statistics (Various Years): Report of Labour Force Survey.
- Bloom, D. E. & J. G. Williamson 1998. "Demographic Dividend and Economic Miracles in Emerging Asia." *World Bank Economic Review*, 12 (3).
- ILO .2012. "The Youth Employment Crisis: Time for Action." Report prepared by the Office for the ILC 2012, Geneva.
- Kapsos, S. 2088. "The Gender Wage Gap in Bangladesh." ILO Asia-Pacific Working Paper Series, Bangkok, ILO.
- Klasen, S and J. Pieters. 2012. "Push or Pull? Drivers of Female Labour Force Participation during India's Economic Boom." Discussion Paper No. 6395. Institute of Labour Studies (IZA).
- Ministry of Finance. 2007. Bangladesh Economic Review. Various Years. Government of Bangladesh.
- Mincer, G. S. 1962. "Labour Force Participation of Married Women." In H.G. Lewis (ed.) *Aspects of Labour Economics*. N.Y: National Bureaue of Economic Research, Princeton University Press, Princeton.
- Phang, H. S. 2003. "Rapid Ageing and Changes in Korea." Paper presented at International Seminar on Low Fertility & Rapid Ageing, Organised by Korean National Statistics Office October 31.
- Planning Commission .2011. Sixth Five-Year Plan of Bangladesh. GoB.
- Rahman, R.I. 2004. "Employment Route to Poverty Reduction in Bangladesh. Role of Self Employment and Wage Employment." Discussion Paper 17. Issues in Employment and Poverty, ILO, Geneva.
- —— 2007. Labour Market in Bangladesh: Changes, Inequities and Challenges. Research Monograph 21. BIDS, Dhaka.
- —— 2009. "Inequality in Access to Education and Its Impact on the Labour Market: A Vicious Cycle." in Q. Shahabuddin and R.I. Rahman (eds.) Development Prospects of Bangladesh: Emerging Challenges. Special Volume for Golden Jubilee of BIDS.
- —— 2013. "Female Labour Force Participation in Bangladesh: Trends, Drivers and Barriers." Asia-Pacific Working Paper. ILO, New Delhi.
- Rahman, R. I. and Md. S. R. Bhuiyan. 2012. "Situation of Youth Employment in Bangladesh: Emerging Challenges and Future Prospects." Paper prepared for ILO, Dhaka.