Serajul Islam Lasker

Crude Activity Rate : A Quantitative Aspect of Human Resources in Bangladesh

Introduction

THIS paper tries to analyze the labour fores participation rates in Bangladesh, **1974** by age-sex break-down, giving runl-urban picture also. It also elucidates the levels of activity rates by regions (divisions and districts) in a limited capacity.

The size of the labour force and its proportion to total population in a country are important determinants of the productive capacity of the economy and level of income per head. With a given population, other things being equal, the larger the size of the labour force of a country, the larger its capacity to produce and consequently, the higher the level of its welfare (Abdel Fattah Nassef, 1970)[1]. Obviously "The structure of the labour, productivity of labour and the rates of unemployment and underemployment are also factors of major importance. A more satisfactory measure of the quantity of labour supply requires consideration of such aspects as the length of working week, the numbers of labour force members available only for part-time or seasonal work, and the annual turn over of persons entering and leaving the labour force"[2]. But this study is limited to only dimensional aspect of the labour force which leaves scope for further study on this issue.

1. Abdel Fatlah Nasscf, The Egyptian Labour Force ; Its Dimensions and Changing Structure, 1907-1960, (1970). pp. 339 .

2. UN—*The Determinants and Consequences ofPopulation Trends,* Volume 1, New York, 19-73.

Source of Data and its Quality, Concept and Census Definitions

When we talk about the qualitative aspect of the labour force, we are faced with the dearth of qualitative data in Bangladesh. Our main source of data on labour force is the population census which is mainly a quantitative aspect. The economically active population or labour force is generally understood to comprise all those persons who contribute to the supply of labour for the production of economic goods and services, including not only those employed at the time of the investigation, but also those unemployed but available for work. If a person is found to participate in some way or other in the productive effort of the community, he is classified as economically active; otherwise he is regarded as belonging to inactive and dependent population. In actual practice however, many difficulties arise in attempting to distinguish the economically active from the inactive population and precise concepts and definitions for measuring these categories is necessary. Generally, labour force is made up of those able bodied persons who are willing to work at the current wage rates plus those who are employed.

Both the 1961 and 1974 censuses of Bangladesh included a person, l0years and older, in the labour force if he or she was working for profit or earning wages or a salary helping any member of his/her family, or was not working but looking for work during the last week of census investigation, if the person was a non-agricultural worker, but with no reference period if the person was an agricultural worker.

Dimension of the Labour Force in Bangladesh

The dimension of the labour force is highly relevant to demographic implications and economic growth. In other words, the crude activity rate which is the proportion of labour force to the total population has a significant bearing on the productive capacity of a country.

The 1974 census recorded 28.7 percent (20.5 million) of the total population as in the labour force. The proportion is quite low compared to developed regions having 44.5 percent and even lower than the less developed regions having 37,5 percent. But the definitional procedures should be taken into account when comparison is made with other countries. Female labour force statistics is likely to be more affected than that of the male labour force by definitional variations. The developed countries including many developing countries fix higher age-limit than Bangladesh for economic enumeration. Of course, different "minimum age limit" may not impair comparability unless participation in the labour force is appreciable for ages below the given limit in some countries. For example,

the U.S. and Japan had higher age limits but being highly developed industrial economies, they have insignificant labour force contributions from the 10-14 age group.

During the period 1901-1961 there has been a continuous increase in the number of persons in the labour force[3]. During 1961-1974, the population growth rate (3 percent) was much higher than the labour force growth rate (1,4 percent). That means the increase of the labour force was not parallel with that of the population.

Male labour force has always contributed to the major share of labour force in Bangladesh. In *1961,* when female participation in the labour force was reported to be at its highest level for any decade, males still contributed to 90 percent (approx.) of the total male labour force[4]. But in 1974 the crude activity rate of female again decreased to a great extent. Almost every male between the ages of 25 and 55 was in the labour force (Table 1). The male crude activity rate for Bangladesh has been found lower than the average rate (56.7) for developed countries, even lower than some of the less developed countries, because of the younger age structure of ths population. This deficiency in age structure was partly compensated for high labour force participation of males in both the younger and older age groups. High rates of participation in these age groups are predominant in the rural areas (agricultural sector), because it is easy to find agricultural work at young age and also to continue it at an old age.

The rural activity rates also support the general hypothesis that males in rural areas enter the labour force earlier and remain active till the more advanced ages than the males in urban areas. It also shows that male activity rates in rural areas surpassed that of the urban in all age groups, the greatest variation being recorded at ages under 25 and over 64 (Table 1). That means, ceteris paribus, the initial stage of increasing urbanization led to the decrease of male activity rate. But this is contrary to the expectation of higher male activity rate due to the age-selectivity of migrants, specially the younger adults, living in the urban areas. Again the fact that the urban fertility is lower than the rural fertility is not reflected in urban male activity rate. In the rural areas high birth rates and low income discourages the children education for a long time, encourages early entrance into the labour force and inhibit early retirement. As

3. **Ghazi M. Faroog,** ***Dimension*** *and Structure of* ***Labour Force and their Changes in the Process of Economic*** *Development : a* ***case*** *study of Pakistan.* **1970, p. 354. Farooq studied the trend of [he ratio** of labour force to population 1901-1961. The non-availability **of economic data for 1941 hampered the** study **to** some extent.

4. *Ibid.*

TABLE 1—PERCENTAGE OF LABOUR FORCE AND THEIR PARTICIPATION RATE IN BANGLADESH, 1974

Age group in years	Total labour force in million	Percentage of total labour force		Crude activity rate								
				Bangaldesh			Urban			Rural		
		Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	20.5	95.8	4.2	28.7	53.0	2.5	32.1	54.1	3.8	28.4	52.9	2,4
10-14	2.4	88.7	11.3	25.6	41.9	6.3	15.5	23.2	7.1	26.7	43.7	6.3
15-19	2.3	94.5	5.5	38.3	67.8	4.5	31.8	54.1	4.3	39.0	69.5	4.6
20-24	2.1	96.3	3.7	42.9	84.0	3.1	47.1	75.1	4.6	42.3	85.6	3,0
25-34	4.4	97.1	2.9	49.1	96.9	2.8	60.1	94.6	5.6	47.8	97.3	2.6
35-44	3.8	97.2	2.8	54.4	98.9	3.3	59.2	97.6	6.8	53.3	99.1	3.0
45-54	2.7	97.0	3.0	55.5	98,4	3.7	63.4	95.5	7.0	54.8	98.6	3.4
55-64	1.7	96,8	3.2	53.3	95.9	4.0	55.5	87.3	5.4	55,3	96,6	3.9
65 & above	1.2	97.2	2.8	50.1	84.2	3.3	39.3	66.0	3.4	50.8	85.4	3.3

indicated above, our agro-based rural economy provides opportunities for the children to work early and at the same time affords works suitable for the older people to continue in the labour force. On the other hand increasing school attendance rates of males 10-14, 15-19 due to increasing opportunities for extended education in urban areas might have depressed the activity rate.

However, a relatively small proportion of the population has been providing the labour force for a rapidly growing population. Because of high birth rates, the age structure of the population is unfavourable having a large number of children and older people in Bangladesh. Compared to the developed countries it has higher dependency ratio and smaller share of working age adults in the population. The higher the dependency ratio the higher is the burden imposed on the family. This results from higher fertility which is more true in case of Bangladesh. This leads to rapid depletion of income earned by the working members and saving and investment is likely to be lower.[5] Hence the resources are diverted to less productive uses. Both high fertility and decreasing mortality rate like other developing countries adversely affected the population composition and hence the age structure. So no favourable change in this respect was recorded.

The other cause of the low proportion of labour force is mainly attributed to low reported participation of women in economic activity. And this economic activity of rural women was largely underreported (especially the unpaid, family work), while that of women in the cities, was depressed perhaps by traditionalism and lack of skill, education and scarcity of suitable jobs. The reasons that 1961 census registered much higher female crude activity rate (10.8) than the 1974 census was mainly due to the fact that more unpaid family, workers, particularly female, were included in 1961 than in 1974. Female participation rate by age-group both urban and rural is very low (Table 1) compared to any standard. The census definition which does not include the housewives but are economically active in the form of unpaid helpers on farms, other family "operated economic enterprises, domestic household works producing goods and rendering valuable services, has a depressing effect on the overall female activity rate. It is also difficult to isolate the part-time and full-time females engaged in productive activities at home. Thus the underreporting is mainly responsible for this very low activity rate.

In Bangladesh the social custom and religious bar inhibits the women to

5. Coale and Hoover, *Population Growth and Economic Development in Low Income Countries :a case study of India's prospects.* Princeton, N. J., Princeton University Press, ***1958,*** **pp.** 389.

work outside the home. The Purdah system prevailing in the Muslim societies are believed to be hindering women employment to a large extent. Again this culture might also affect the reported numbers actually engaged in outside paid works. In an Egyptian study it has been found that the people of conservative rural areas were reluctant to acknowledge their status of participation in income producing jobs'. Other possible explanations for the low women's participation may be attached to Sinha's hypothesis which states that the initial stage of industrialisation would register a low activity rate and in the latter stage a high rate[7].' Bangladesh has been experiencing a slow rate of industrialisation since her independence which could virtually be termed as a state of stagnation. Therefore, the hypothesis indicates that the crude activity rate for women is likely to remain low for a long period of time. Many studies have found the level of income, education and employment conditions as the determinants to the activity rate to some extent specially the female activity rates. Urban females in Bangladesh are more exposed to these factors and accordingly activity rates are influenced. Increased income may have 'income effect* which is negative and is likely to be pronounced on male activity rate and substitution effect which has positive effect on activity rate is likely to be pronounced in women's participation. Education increases the skill, brings opportunities, removes social taboos, conservativeness, and enhances the freedom of choice. Hence, this has effects on the participation rate to a great extent.

Going Deep into the tables 2 and 3, it can be seen that female crude activity rates are primary determinants of regional variations in total labour force. Female activity rates varied between 1.6-3.6 in the divisions, while male and total participation rales varied between 51.3-54 and 27.2-29.6 respectively. Similarly districts activity rates varies within the range of 26-31 for total, 50i 56 for males, 1-5 for females excluding the district of Chittagong Hill Tracts which is an extreme case. Chittagong Hill Tracts exhibit the highest crude activity rates and far above compared to other districts which is also reflected in the activity rates of Chittagong division. Possible reason is that women in these districts take part in outside work like 'Jhum Cultivation' and other field works. Among the tribes like Chakma, Magh, Moorang, female participation in income producing works is very high and they share equally with the men in outside activi-

6. Abdul Moneim, N. K. Shafed. "The Current Labour Force Sample Survey in Egypt (U. A. R.)", *International Labour Review*, Vol. 82, No. 5, November 1960, pp. 432-449.

7. **J. N. Sinha, ' Dynamics** of female participation **in the economic activity in a developing country", In papers** contributed by Indian **Authors, *World Population Conference,* Belgrade, 1965, pp. 253-263.**

TABLE 2—AGE SPECIFIC CRUDE ACTIVITY RATES BY REGIONS, 1974 (DIVISION)

Age group in years	Chittagong Division			Dacca Division			Khulna Division			Rajshahi Division		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	29.6	53.6	3.6	29.2	54.0	2.1	27.2	51.3	1.6	28.4	52.7	2.7
10-14	24.9	39.0	8.0	25.9	42.8	5.8	21.3	36.1	4.6	40.4	48.8	6.9
15-19	40.3	67.7	7.3	33.2	67.5	2.9	35.6	65.4	2.7	38.4	70.4	4.2
20-24	44.4	84.0	4.8	41.8	80.1	2.5	41.6	83.2	1.9	41.7	85.3	3.1
25-34	49.2	96.8	4.3	49.8	97.0	2.2	48.4	96.6	1.4	48.4	97.2	3.0
35-44	55.0	98.8	4.7	54.7	99.0	2.6	53.1	98.8	1.7	54.3	99.1	3.7
45-54	55.7	98.2	5.0	55.5	98.5	3.5	55.0	98.2	2.0	55.9	98.4	4.4
55-64	32.7	95.4	1.9	54.9	96.1	3.0	54.7	95.6	2.3	54.8	92.2	5.5
65 & above	49.1	81.4	3.8	50.5	85.6	2.6	47.7	82.6	2.6	52.4	87.3	4.9

TABLE 3-CRUDE ACTIVITY RATES CONSIDERING ALL AGES AND DEPENDENCY RATIO, 1974

Locality	*Crude activity rate*			*Dependency ratio**
	Both sexes	*Male*	*Female*	
Bangladesh	28.7	53.0	2.5	248.3
—Urban	32.1	54.1	3.8	210.7
—Rural	28.4	52.9	2.4	252.4
Chittagong Division	29.6	53.6	3.6	237.3
Dacca Division	29.2	54.0	2.1	242.1
Khulna Division	27.2	51.3	1.6	267.6
Rajsbahi Division	28.4	52.7	2,7	252.0
Chittagong District	30,6	54.7	2.8	227.0
Chittagong Hill Tracts	44.0	61.3	24.1	127.1
Comilla District	28.5	51.5	3.8	251.0
Noakhali	26.2	49.7	1.5	281.2
Sylhet District	30.6	56.2	3.3	226.9
Dacca District	30.4	54.4	2.8	229.4
Faridpur District	27.7	52.6	1.4	261.1
Mymensingh District	19.6	55.3	2.1	238.1
Tangail District	26.8	51.0	1.2	272.5
Bakerganj District	27.1	51.3	1.5	268.4
Jessore District	26.0	49.5	1.1	284.4
Khulna District	28.7	52.7	1.9	248.0
Kushtia District	26.8	50.8	1.3	272.7
Patuakhali District	27.7	52.3	2.2	261.4
Bogra District	27.9	52.6	2.1	259.0
Dinajpur District	300	54.4	4.7	233.1
Pabna District	27.4	51.5	1.8	264.5
Rajshahi District	27.4	50.9	3.0	265.2
Rangpur District	28.9	54.0	2.3	245.4

'Dependency Ratio—$\frac{\text{Population not in the labour force}}{\text{Population in the labour force}}$ **X100.**

ties. They are mainly non-muslims and mostly Buddhists who don't maintain "Purdah system" and they are free from social taboos and prejudices. And hence there is no bar for the women to work outside the home. Again, the main labour force in the tea-gardens comprises the womenfolk in the district. Some women are also engaged in plucking the betel leaves and collection of woods in the forest. Compared to other districts, the districts of Comilla, Sylhet, Dinajpur and Rajshahi have higher female activity rates (also above the total activity rate) while Jessore, Tangail, Kushtia, Faridpur, Noakhali and Bakerganj show very low rates of activity although literacy rates are quite high for female in some of these districts.

APPENDIX

TABLE I—AGE SPECIFIC CRUDE ACTIVITY RATES OF DIFFERENT DISTRICTS, 1974

Age	Chittagong District			Chittagong Hill Tract District			Camilla District		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	30.6	54.7	2.8	44.0	61.3	24.1	28.5	51.5	3.8
10-14	22.9	35.9	8,2	56.9	59.6	53.7	22.6	35.5	6.7
15-19	40.1	66.6	5.7	68.5	82.1	53.9	38.0	63.4	7.5
20-24	48.6	84.1	3.1	66.5	93.7	37.4	42.8	81.5	5.8
25-34	52.6	97.0	2.3	65.4	98.6	27.7	48.1	99.0	5.5
35-44	56. 1	98.9	2.5	67.8	98.2	25.5	54.3	99.1	5.8
45-54	56.5	98.0	3.4	68.7	98.7	25.7	55.1	98.8	5.8
55-64	54.0	93.5	3.9	66.1	95.3	24.1	53.4	84.8	3.9
65 & above	43.8	75.8	3.0	49.7	75.8	15.3			

Age	Noakhaii District			Sylhet District			Dacca District		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	26.2	49.7	1.5	30.6	56.2	3.3	30.4	54.4	2.8
10-14	19.7	32.6	4.4	30.1	49.1	6.8	21.1	33.5	6.5
15-19	35.3	62.0	3.4	43.3	77.5	5.2	36.9	63.6	5.2
20-24	38.9	81.2	1.6	43.1	87.3	3.9	46.6	83.6	3.7
25-34	44.8	96.7	1.0	49.2	97.1	4.1	53.9	96.6	3.6
35-44	50.6	99.0	1 .4	56.1	98.3	5.2	58.3	99.0	4.2
45-54	53.8	99.5	2.0	55.9	97.5	5.4	57.5	97.9	4.1
55-64	54.9	96.5	2.0	55.0	94.6	5.4	54.9	94.2	3.1
65 & above	51.2	83.7	2.3	49.6	80.1	4.6	48.2	82.2	2.4

Age	Faridpur District			Mymensingh District			Tangail District		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	remote
All ages	27.7	52.6	1.4	29.6	55.3	2.1	26.8	51.0	1.2
10-14	23.1	38.9	4.3	33.2	54.5	6.8	24.0	42.0	3.5
15-19	38.5	68.2	2.6	40.2	72.6	3.3	35.3	63.4	2.5
20-24	42.6	85.0	1.6	41.8	84.6	2.1	40.0	78.4	1.6
25-34	43.5	85.9	1.0	48.2	97.4	1.8	45.9	96.0	1.0
35-44	51.8	99.0	1.5	53.1	99.2	2,2	52.7	98.8	1.1
45-54	53.2	98.9	1.7	54.6	98.7	2.9	51.5	98.3	1.3
55-64	53.2	97.2	1.7	56.2	97,2	3.9	53.1	97.0	2.1
65 & above	49.2	86.9	1.7	53.6	87.8	3.4	48.4	S5.6	1.7

Age	Khulna District			Kushtia District			Patuakhali District		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	28.7	52.7	1.9	26.8	50.8	1.3	27.7	52.3	2.2
10-14	20.9	34.7	5.6	25.0	43.8	3.9	22.2	35.9	7.1
15-19	40.0	64.2	12.1	37.5	70.9	2.0	35.3	64.3	4.6
20-24	42.2	83.0	1.8	42.2	84.2	1.2	39.4	83.7	2.3
25-34	50.7	96.7	1.8	49.5	97.4	1.5	47.0	97.0	1.4
35-44	55,1	98.7	2.5	47.8	99.0	1.2	51.5	99.0	1.4
45-54	56.5	97,8	3.1	54.1	98.0	1.5	56.8	98.4	2.2
55-64	55,3	94.5	3.2	69.1	94.5	3.7	56.8	95.9	3.4
65 & above	46.7	81.7	2.6	46.6	87.4	1.7	50.0	82.4	3.8

Table 1 (contd. oon page 66)

Table I (Contd. *from page 65)*

Age	Bakerganj District			Jessore District			Bogra District			Dinajpur District		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	27.1	51.3	1.5	26.0	49.5	1.1	27.9	52.6	2.1	30.0	54,4	4.7
10-14	20.0	33.8	4.4	20.6	35.9	3.2	30.6	49.2	7.6	30.0	47.0	9.0
15-19	35.6	63.7	3.2	34.7	66.2	1.5	35.6	66.4	3.8	41.4	72.6	6.5
20-24	40.6	81.7	2.2	41.8	84.6	1.8	39.1	82.6	2.8	45.2	91.2	8.0
25-34	46.5	95.6	1.5	48.3	97.1	1.0	46.6	96.9	1.4	50.8	97.6	6.1
35-44	51.9	98.5	1.4	52.5	99.0	1.3	52.7	98.9	1.9	57.8	99.3	8.3
45-54	53.8	98,0	1.5	54.6	98.8	1.5	54.2	98,6	2.5	59.5	98.6	9.5
55-64	54.9	95.9	1.5	55.0	96.7	2.1	54.6	95.9	*3.6*	62.2	96,4	11.6
65 & above	49.5	81.6	1.5	46,6	85.6	1.8	56.5	9 0.1	*4.6*	55.8	87.7	8.8

Age	Pabna District			Rajshahi District			Rangpur District		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	27.4	51.5	1.8	27.4	50.9	3.0	23.9	54.0	2.3
10-14	29.2	49.2	4.8	25.7	42.7	5.7	33.6	54.1	7.9
15-19	39.3	70.0	3.9	36.2	67.1	4.6	39.5	73.7	3.0
20-24	43.0	84.8	2.5	41.0	83.1	4.1	41.8	87.3	1.8
25-34	48.0	97.1	1.9	48.2	96.7	4,1	48.4	97.5	1.7
35-44	52.2	99.2	1.9	54.8	99.0	4.5	54.0	99.1	2.7
45-54	53.7	98.6	2.0	56.1	98.2	5.0	55.9	98.4	3.7
55-64	53.6	96.6	2.9	54,7	95.9	6.5	56,7	96.6	4.7
65 & above	49.8	85.6	2.8	49.5	86.7	5.1	53.0	87.3	4.5

TABLE 2—LITERACY RATES, 1961 AND 1974

Locality		Percentage of literate population						Percentage variation of literates over 1961		
		1974			1961					
		Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1	2	3	4	5	6	7	8	9	10	11
Bangladesh		22.2	29.9	13.7	19.9	29.3	9.6	59.3	45.9	104.5
Chitiagong	Division	24.5	32.9	15.2	22.6	33.1	11.0	50.8	38.7	90.5
Dacca	„	20.5	27.3	12.9	17.9	25.9	9.0	62.4	49.9	102.3
Khulna	„	25.9	34.1	17.1	21.5	31.2	10.7	73.9	55.9	131.7
Rajshahi	„	18.6	26,3	10.2	18.1	27.5	7.7	52.9	41.2	98.9
Chitiagong	District	29.7	38.5	19.6	24.6	35.9	11.5	76.0	56.1	148.0
Chittagong Hill tracts	„	18.2	26.3	S.6	13.9	22.1	3.5	73.5	52.4	245.1
Comilla	„	23.8	32.2	14.6	24.1	35,3	12.1	33.7	25.0	60.7
Noakhali	„	26.2	35.6	16.2	23.2	34.6	11,6	55.9	44.7	90.3
Sylhet	„	20.2	27.7	12.2	19.5	28.4	9.7	43.7	34.0	74.9
Dacca	„	26.3	33.8	17.5	21.9	30.9	11.8	83.0	69.7	[22.8
Faridpur	„	20.3	28.2	11.9	16.6	25.2	7.5	59.7	46.5	106.9
Mymensingh	„	15.4	20.7	9.6	15.3	22.0	7.8	39.2	28.6	72.8
Tangail,,		17.9	24.8	10.5	16.7	25.1	7-7	54.7	42.7	96.9

Table 2(contd. on page 68)

Table 2 (contd. *front page 67*)

1	2	3	4	5	6	7	8	9	10	11
Khulna	„	28.5	38.0	18.1	25.0	36.3	12.2	69.6	53.6	123.7
Kushtia	„	16.9	22.7	10.6	*14.6*	*21.2*	7.1	91.9	74.0	151.1
Patuakhali	„	27.7	36.6	18.4	18.9	28.6	8.7	85.6	61.1	171.2
Bakerganj	„	30.2	37.5	22.3	24.3	34.1	13.7	61.8	42.9	112.2
Jessore	„	22.5	31.4	12.9	*18.6*	28.1	7.9	88.9	70.9	160.2
Bogra	„	22,1	30.8	13.0	20.4	30.7	9.4	56.2	43.1	102.2
Dinajpur	„	21.5	31.4	10.6	23.1	36.2	7.9	41.8	29.0	108.6
Pabna	„	16.2	22.2	9.8	15.5	22.0	S.5	53.4	47.7	69.4
Rajshahi	„	19.4	27.0	11.4	17.9	26.9	8.3	67.7	54.2	114.5
Rangpur	„	16.2	23.8	8.1	16.3	25.5	6.1	46.2	35.3	96.5