Labor As a Constraint and Its Potential Supply Under Reconstruction

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It is a generally valid observation to make that given the losses in population, the large number of handicapped persons, the massive dislocations of the population as refugees outside and inside the country and the expected attrition among the external refugees in not repatriating, as well as the disruptions in the rate of growth of the supply of labor, career patterns, and educational services, the supply of labor and particularly the supply of skilled labor, will form major constraints. This will be true during the full reconstruction period which we have assumed to run from five to seven years, and post-reconstruction when the country is ready to resume a normal course of growth and development.

Similar to the estimates of the population carried out above, with the assumption of a constant rate of growth, below estimates of the labor force are made again with the assumption of a constant rate of growth of the labor force given at 1.12 percent in the Seven Year Plan for the years 1976/77-1982/83.

Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Labor</th>
<th>Annual Rate of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975/76 (actual)</td>
<td>5,617,600</td>
<td>-</td>
</tr>
<tr>
<td>1982/83</td>
<td>6,113,800</td>
<td>1.12</td>
</tr>
<tr>
<td>1983/84</td>
<td>6,182,275</td>
<td>&quot;</td>
</tr>
<tr>
<td>1984/85</td>
<td>6,251,516</td>
<td>&quot;</td>
</tr>
<tr>
<td>1985/86</td>
<td>6,321,533</td>
<td>&quot;</td>
</tr>
<tr>
<td>1986/87</td>
<td>6,392,334</td>
<td>&quot;</td>
</tr>
<tr>
<td>1987/88</td>
<td>6,463,928</td>
<td>&quot;</td>
</tr>
<tr>
<td>1988/89</td>
<td>6,536,324</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

Source: For the years 1975/76 and 1982/83, Table 5, Chapter VII, p. 11. For other years projected at the constant rate of growth of 1.12 percent assumed in the Seven Year Plan 1976/77-1982/83.
The estimated labor force is a constant 33.67 percent of the estimated population from 1975/76 onward where this was an actual proportion, to 1988/89. This assumption is retained for simplicity. In reality, given the scope of the factors that have affected the population including the age composition it is likely that a lower proportion of the population is capable of work and form the supply of labor. In the case of external refugees our estimates showed (Chapter VII) that as low as 13-14 percent of the external refugee population will form the potential supply of labor.

Our purpose here is to offer a number of estimates on labor. The usual caution should be borne in mind in interpreting the results strictly. First, we estimate the supply of labor inside Afghanistan. Second, estimates of the shortfall in the supply of labor are offered in relation to the actual supply of labor in 1975/76 and the projected supply of labor in 1987/88. Finally, given the effect of the war on the gender composition of the population the changing male/female ratio in the labor force is discussed.

Consider the supply of labor under the assumptions applied in Chapter VII for estimating the supply of labor among the returning refugees that 52.3 percent of the population constitute those capable of work falling in the age category 15-59. It was also assumed that the labor participation rate was 70 percent. In Chapter VII the population inside Afghanistan was estimated to be 11,444,948 after adjustments were made for the 9 percent loss in population estimated by Sliwinski and our estimate for the total number of external refugees in 1987. Sliwinski also offered an estimate of 3.1 percent for the handicapped among the population at large. It is not clear how severely handicapped these individuals are, or what age and sexes do they fall in. At some stage it is likely that a certain proportion of
the handicapped will enter the labor force, at least in specialized areas. For the purpose of this estimate it is assumed that these individuals will not be part of the regular labor force.

Thus, the number of persons capable of work (P.C.W.) adjusted for the number of handicapped persons can be estimated as:

\[
P.C.W. = 11,444,948 - 0.031 (11,444,948) - 0.523 (1 - 0.031) (11,444,948) \\
= [0.969 - 0.523 (0.969)] (11,444,948) \\
= 5,800,151
\]

Therefore, internal labor force (I.L.F.) = Rate of labor participation \times number of persons capable of work

\[
= (0.70) (5,800,151) \\
= 4,060,106
\]

If we assume that the estimated maximum of 810,046 from among the external refugees will enter the labor force then the total supply of labor will consist of 4,870,152 for the year 1987/88. This represents a decrease of 747,448 (13.31 percent) from the actual labor force of 5,617,600 in 1975/76 and a shortfall of 1,593,776 from the projected labor force for 1987/88 given in Table 1. Thus, the estimated labor force in 1987/88 represented a shortfall of almost 25 percent in comparison with the size of the projected labor force at a constant growth rate of 1.12 percent per annum. The decrease in labor on the farms is even more drastic according to the recently completed agricultural survey. It is found that hired labor on private farms declined by 33.21 percent whereas family labor per farm
declined by 20.21 percent between 1978-87, a combined decrease in labor of 53.42 percent.1

Another way to view this shortfall is to measure the estimated labor force of 4,870,152 as a proportion of the estimated population for 1987/88. This amounts to 25.70 percent of the estimated population of 18,947,820. Generally the size of the Afghan labor force was about 33.66 percent of the population. This was true for 1975/76 and for the projections we have made above. Therefore, if it is assumed that it takes about 33.66 percent of the population at the full employment level to generate a given output level (GNP) in peace time, then it seems that the Afghan economy will face a shortage of labor of about 1,508,246 = (0.3366 - 0.257) (18,947,820) as of the year 1987/88. This is not surprising given the combined losses in population of 1,705,304 or 9 percent of the population and the number of handicapped persons estimated at 534,518, or 3.1 percent of the total population, which in total takes 2,239,822 out of the potential labor force. The shortfall in labor is 67.34 percent of this segment of population killed and handicapped by the war.

An important consideration in the discussion of the supply of labor is the issue of the separate effects of the war on the males and females in the labor force and the potential supply of labor. The survey study by Sliwinski shows that between 1978-87 the losses among men were 134 per thousand, whereas for women it was 38 per thousand. In certain age categories, such as 31-40 years old, the losses among the men were substantially higher at 224 per thousand as against 21 per thousand for women.2 These findings about the effects of the war will have drastic effects on the gender composition of the population affecting the rate of growth of the population and the size and composition of the population.
capable of work. It seems that due to the effects of the war the male/female ratio among those capable of work defined as those between the ages of 15-59 has essentially switched positions among the external refugees in comparison with this ratio for 1975/76. Table 2 below provides this information in part based on our estimates of the minimum and maximum number of males and females capable of work among the external refugees.

Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Percentage</td>
<td>Total</td>
<td>Percentage</td>
</tr>
<tr>
<td>1975/76</td>
<td>4,533,000</td>
<td>52</td>
<td>4,185,000</td>
<td>48</td>
</tr>
<tr>
<td>(actual)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1987/88</td>
<td>Minimum</td>
<td>Maximum</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>(estimated)</td>
<td>503,388</td>
<td>546,048</td>
<td>562,552</td>
<td>611,160</td>
</tr>
</tbody>
</table>

Source: Tables 5 and 6, Chapter VII, pp. 11-13.

In 1975/76 52 percent of those capable of work were males and 48 percent were females among the population at large. This yields a male/female ratio of 1.083. Sliwinski finds a figure of 1.062 for this ratio for 1979. The slight decline for this ratio for the period can be explained by the increase in labor force participation by women. We do not know what this ratio is like among the internal population. Among the external refugees we obtain a ratio of 0.893 as against the ratio of 0.957 found by Sliwinski. Our estimate is based on the male/female ratio of refugees exiting into Pakistan during 1986 as noted above. If some of the men return to Afghanistan to carry on the war effort then this ratio should
actually be lower than 0.893. This would also mean that the ratio of males/females inside the country should be higher. In fact, Sliwinski finds that among those family members that continued to remain in the country there were twice as many males as females. 3

All these issues require closer study as more information becomes available. But it is clear that the war has substantially reduced the potential size of the labor force and may have changed the gender composition of those capable of work inside the country in such a way as to bring more women than men into the labor force. Given the areas of specialization of work for women under the Shari'a and its interpretations, the changing composition of the labor force is likely to lead to the development of certain labor markets at the comparative disadvantage for other labor markets. This issue clearly requires closer analysis to determine the effects in various areas. Under the prevailing conditions this cannot be done.

Some Effects of the Labor Short Fall

It is clear that substantial labor shortfall will be experienced in Afghanistan during the reconstruction period and much beyond that. What is not clear is how will this affect reconstruction programs and projects in general and, more specifically, different projects in different areas as their needs may depend on semi-skilled and skilled labor and professionals which will form more narrowly-based constraints.

Some of these emerging constraints are pointed out in the study by Sliwinski. He finds out that among the professions that the refugees held before exodus by comparison with post-exile status the proportion of unemployment among men increased from 38 to 51 percent, and that the
proportion of the non-skilled workers also increased substantially among the refugees from 4 to 21 percent. These and other changes that have occurred and are not discernible will form some of the major problems in the labor markets. How representative these changes among the refugees in Pakistan are of the population at large is not clear. But in all likelihood these changes, which in general can be categorized as loss of human capital due to the effects of the war cut through the various cross-sections of the population inside the country. These effects are not limited to the labor force alone. As discussed in Chapter V between 1978 and 1984 there were drastic declines in primary school enrollments and major decreases in other levels. These changes, of course, will mean serious problems that need to be addressed under reconstruction.

Given the spectrum of projects and programs expected to be launched under reconstruction there are several possible avenues to minimize the labor constraint. First, wherever it is possible, capital should be substituted for labor. This will mean, after the needs of reconstruction are specified and assessed, to search methods under reconstruction and beyond that for production which are more capital-intensive. Second, specific wage and income incentives might be provided to the potential supply of workers who were guest workers in Iran before the Soviet invasion to return to their homeland. The same kind of programs might be extended to other external refugees capable of work. In Chapter VII it was indicated that as many as 600,000 Afghan workers might have been present in Iran by 1979. Third, the employment of guest workers and particularly skilled and professional workers for the reconstruction is another alternative. This avenue could be pursued simultaneously with the first approach in general planning for reconstruction.
Finally, it is unnecessary to state that the long run solution to the large expected labor shortage is the growth of population and rejuvenation of the development of different labor markets particularly for the development of skills and professions, which the Seven Year Plan had projected a significant shortfall for the years 1976/77-1982/83 much before the drastic events of the past ten years.5

It should be added that the development of Resistance over the past has also led to the development of a range of skills among the mujahideen and the general population. These developments are regional and limited in scope, however. While they will be able to meet some of the requirements of the reconstruction, the general deficiencies will prevail.6