TABLE 10.3. Labor requirements for growing one hectare of maize using traditional and recommended practices.

Activity	Traditional planting man-days	Planting using recommendations of the Puebla Project. man-days
Land preparation in fall		
Plowing	3.0	3.0
Smoothing	0.4	0.4
Second land preparation		
Plowing	3.2	3.2
Smoothing	0.4	0.4
Third land preparation		
Plowing	1.8	1.8
Smoothing	0.3	0.3
Planting		
Rowing out	1.7	1.7
Planting	2.6	4.2
Fertilizing	-	1.8
First cultivation		
Cultivating	1.7	1.7
Fertilizing	0.8	-
Uncovering plants	2.1	2.5
Second cultivation		
Cultivating	1.8	1.8
Fertilizing	0.4	2.4
Straightening plants	1.8	1.8
Harvest		
Cutting the stalks	2.0	3.3
Shocking the stalks	1.6	2.2
Shucking the ears	8.6	12.0
Shelling the grain	6.4	8.2
Total	40.6	52.7

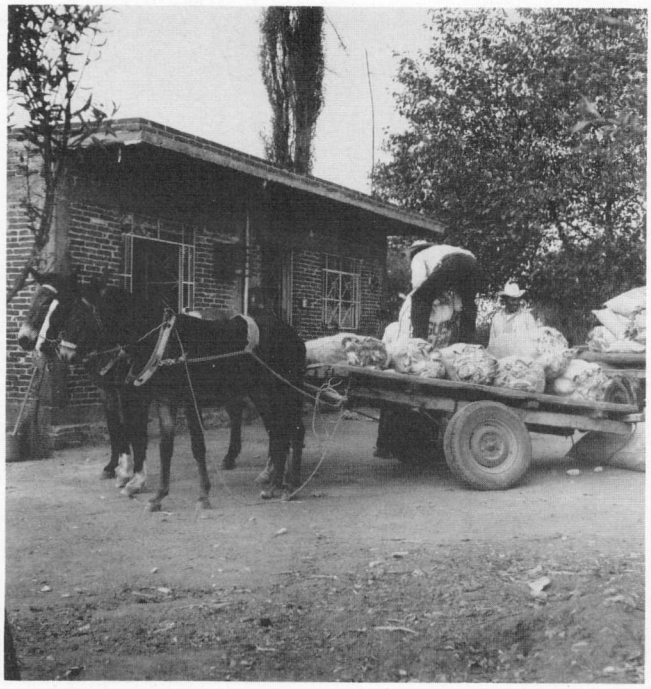
These differences in the labor requirements between the traditional and new technology can be used to estimate the change in the average level of employment in maize production per farm family that can be attributed to the adoption of the recommended practices from 1967 to 1972. An assumption can be made that the labor requirements for traditional plantings of maize shown in Table 10.3 represent the average level of employment per hectare in maize production in 1967. It can also be assumed that the new technology was used in 35 percent of the area planted to maize in 1972[6]. The average area that each farmer planted in maize was approximately 2.1 ha in 1972. Multiplying this value by 35 percent gives 0.74 ha, the average area in which farmers used the recommended practices. When this area is multiplied by 12.1 man-days (the increase in labor requirements per hectare in using the new technology) the resultant is 9.0 man-days, or the approximate labor increase per farm family due to use of the recommendations. That is, each farm family on the average increased the number of days spent in growing maize from 85.3 in 1967 to 94.3 in 1972, or by 11 percent.

These increases in employment, although important, are relatively small compared with the level of seasonal unemployment in the Project area. Clearly, it is important to promote other activities in the area that will complement the effect of the improved maize technology in increasing the level of employment during those periods of the year when labor requirements for farming are not high.

OTHER CHANGES THAT INFLUENCE THE GENERAL WELFARE

As noted previously in this report, the Project planners expected that higher family incomes would lead to improvements in the general welfare of the farmers. The following data provide a description of changes in food consumption and improvements in the home between 1967 and 1970.

Family welfare can also be influenced by many other factors, including the availability of public services such as potable water, electricity, schools and health centers; such availability can be affected by action by the farmers on the institutions that provide these services. Information on changes in the availability of these services is presented here with no attempt to assess how such changes were brought about.



According to the 1967 survey, 44 % of the farm families lived in houses with only one room besides the kitchen. By 1971, thirteen percent of the farmers had added another room to their houses.

6. As discussed in Chapter 9, the several recommended production practices have been adopted at different rates, and there is no way to quantify precisely the level of adoption of the new technology.