

6 | EMPLOYMENT AND RURAL POVERTY IN MEXICO

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This article seeks to contribute to the discussion of the link between poverty and the persistence of the peasantry in the current capitalist system. It provides empirical evidence of the socio-economic characteristics of the peasantry in Mexico and their links with agricultural production, focusing on the period from 1991 to 2003.¹ However, we shall refer to the living conditions of the peasantry up to 2010. We begin with a brief description of the socio-economic conditions that prevailed in the Mexican countryside after the Revolution of 1910. We will emphasise the public policies that shaped and/or exacerbated inequalities in forms of production and, therefore, in the lives of: 1) major agricultural producers, defined here as those who own medium and large-sized plots; 2) waged and/or salaried agricultural workers; and 3) peasants, identified as producers on small plots.

1. The Mexican countryside in the twentieth century

During the last century, the Mexican countryside underwent major transformations. On the one hand, the core of the agricultural economy was transformed from large haciendas producing for both national consumption and exports, to modern agricultural zones whose production was designed to ensure the development of national industry and the urban proletariat. Despite these changes, large contingents of peasants remained outside the benefits of development, with undeveloped means of production and land destined largely for subsistence.

In 1930, 70 per cent of the employed population of Mexico worked in rural areas,² and working conditions had not improved since pre-revolutionary times; company stores continued, workers were heavily indebted,³ and their daily pay was insufficient to satisfy their basic needs (Tello 2010: 137). At the same time, the agricultural

population became more dependent on monetary income while the importance of subsistence production declined.

Although agricultural land distribution was one of the main symbols of the 1910 Revolution, the agrarian reform was insufficient, since the land provided was largely non-arable (Table 6.1) and there was very little support given to the modernisation of smallholders' and farmers' production (see Hewitt de Alcántara 1978).

During the Cárdenas administration (1935–40), attempts were made to create a rural middle class. The proportion of the population that benefited from the agrarian reform rose from 31 per cent to 42 per cent of the total agricultural population, and the Banco Nacional de Crédito Ejidal (National Bank of Ejido Credit) was established, together with mutual insurance funds. Ejido funds were created and the profits used to build auditoriums and corn mills, among other facilities. Mass literacy campaigns were established, and regional agricultural schools created, together with women's organisations. Attempts to alleviate poverty did not entail emerging programmes to protect the poor from hunger but instead sought to involve them in productive programmes (ibid.: 186).⁴

Mass immunisation programmes reduced mortality rates in rural zones, which, according to Hewitt de Alcántara, produced rapid population growth and a sharp imbalance between arable land and demographic pressures. The rapid growth of industrial activity generated employment, permitting mass rural–urban migration.

Agricultural activity was functional to industrial and urban demands, providing cheap supply inputs for production and food, which led to a transfer of value from the agricultural to the industrial sector. The export of agricultural raw materials generated foreign currency to facilitate imports of capital and intermediate goods and to cover payments for the technology that fostered national industrialisation. Health services and education were established for the urban population, but were neglected in the countryside. As Hewitt de Alcántara (ibid.) suggests, the rural population became a reserve army for this nascent industrial development. Moreover, rural–urban migration accelerated in the 1940s, continuing at a high rate until 1980.

The abandonment of rural zones since the 1982 crisis and the subsequent change in the economic model of development – the adoption of neoliberalism – have exacerbated the decline of

TABLE 6.1 The distribution of agricultural land, 1915–70

President (period)	Hectares	Beneficiaries	Hectares per beneficiary	Type of agricultural land (%)		
				Irrigated land	Rain-fed land	Non-arable land
Carranza (1915–20)						
De la Huerta (1920)	381,949	77,203	4.9	2.5	42.8	54.7
Obregón (1921–24)	1,730,684	154,128	12.3	3.1	28.4	68.5
Calles (1925–28)	3,173,343	292,194	8.6	3.2	27.2	69.6
Portes Gil (1929–30)	1,436,203	187,203	7.7	2.9	22.4	74.7
Ortiz Rubio (1931–32)	910,261	56,884	16.0	2.4	18.8	78.8
Rodríguez (1933–34)	2,056,268	158,262	13.0	4.4	25.2	70.4
Cárdenas (1935–40)	2,010,044	763,009	26.4	4.9	21.1	74.0
Ávila Camacho (1941–46)	5,306,922	112,107	47.3	1.6	17.9	80.5
Alemán (1947–52)	4,210,478	91,054	46.2	1.5	19.7	78.8
Ruiz Cortines (1953–58)	3,563,847	195,699	18.2	1.2	24.8	74.0
López Mateos (1959–64)	7,935,476	255,283	31.1	0.8	18.2	81.0
Díaz Ordaz (1965–70)	24,491,000	396,700	65.9	0.5	8.2	91.3

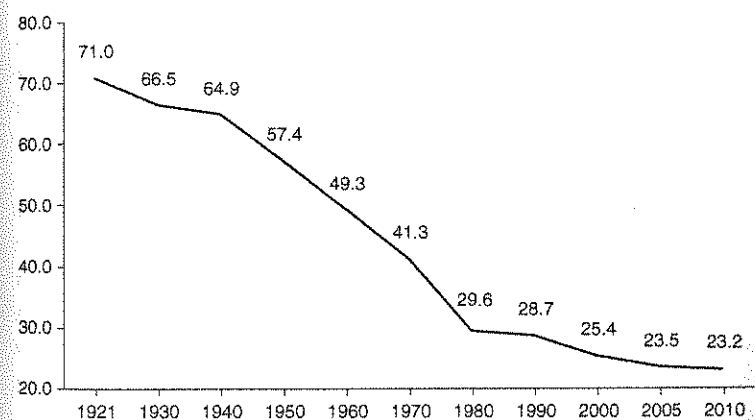
Source: Hewitt de Alcántara (1978).

the agricultural sector. Today, only a few states have modern agricultural production, most of them located in northern Mexico (Sonora, Colima, Baja California and Baja California Sur).⁵ At the other extreme are states that have more numerous, poorer, peasant populations (Quintana Roo, Yucatán, Chiapas, Tabasco, Guerrero, Veracruz, Oaxaca, Campeche, San Luis Potosí and Hidalgo). In these states, agricultural production is carried out with rudimentary technology, and a major proportion of peasants still use pre-capitalist techniques of production: animal traction and rudimentary tools (Flores 2012).

2. Demographic aspects of the rural population

In the twentieth century, Mexico was transformed from a predominantly rural to an urban country (Figure 6.1): whereas in 1910 the percentage of the rural population was 71 per cent, by 2010 it accounted for only 23.2 per cent. Moreover, as Pacheco and Sánchez (2012) have pointed out, the decrease in the proportion of the rural population was accompanied by territorial dispersion. Nevertheless, in absolute terms, the population living in rural zones continued growing (from 10.7 million in 1910 to 26.1 million in 2010).

In the early post-revolutionary years, the decrease in the proportion of rural population was relatively slow; as late as 1940, it accounted for



6.1 The rural population as a percentage of the total population, 1921–2010 (source: 1910–2000: Pacheco and Sánchez (2012: cuadro 1); 2010: Censo de Población y Vivienda (National Census) for 2010 (INEGI 2011))

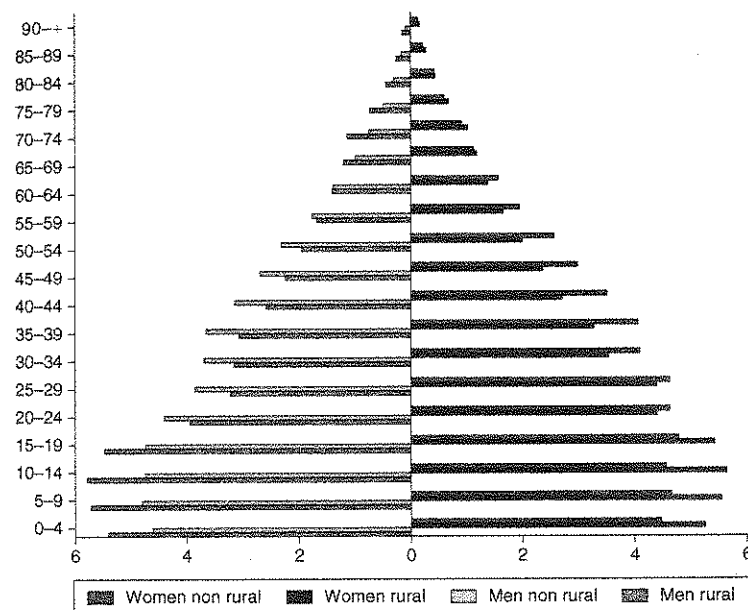
two-thirds of the total population (64.9 per cent). That year marked the beginning of Mexico's greatest industrial development and country to city migration speeded up. According to certain authors, an important part of this migratory flow had a circular component. In other words, people returned to their place of origin for certain seasons, particularly in regions where the employment structure made it possible to combine various activities (Appendini 2008). This circularity, developed several decades ago, can be regarded as forming part of the mechanisms used by Mexican peasants to ensure their persistence. The fact that agricultural activities are seasonal provides a possible explanation for this circularity, an issue we will explore in greater depth below.

The reduction in employment opportunities in cities as a result of the exhaustion of the import substitution model of industrialisation coupled with the 1982 debt crisis reduced the possibilities of migration from rural zones. Since then, a considerable increase in migration towards northern Mexico and the United States has been observed, making remittances from this migration (especially from the US) an important source of income for rural families.

Historically, there has been a strong link between the Mexican rural proletariat and capitalist forms of production in the United States. Formal links were established in the 1940s with the first Bracero programme, and although this programme was eliminated in the 1970s, there continues to be labour migration quotas together with large volumes of unauthorised migration. In 1999, according to the official US census, there were 650,000 Mexican workers in US agriculture, 7.6 per cent of the total US agricultural labour force, with the percentage higher among males (10.9 per cent). Although the number of Mexican workers in agriculture has now decreased considerably (in 2010, 323,000 Mexican workers were reported in this activity in the United States), this may be due to the fact that figures are underestimated. Not only is there a large number of unauthorised workers, but also the composition of Mexican labour in the United States has been transformed in recent years with a higher percentage now engaged in service activities. Nevertheless, remittances continue to be a significant source of income in certain rural areas.⁶ Migration to the United States, therefore, constitutes a resource that contributes to the persistence of Mexican peasantry.⁷

The dynamic of migration to the US has been modified, partly as a result of stiffer control over Mexico's northern border but also as a result of the 2008 crisis. During the first decade of this century, it was calculated that the yearly number of emigrants to the United States fluctuated between 400,000 and 600,000. However, there is a dispute over the real amount of emigration to the US.⁸

As a result of national and international migration, there has been a depopulation of the working age population in rural zones, largely because of the lack of job opportunities. As a result, ancestral poverty is combined with a lack of human resources for engaging in economic activity in these zones. This situation can be observed in Figure 6.2, where the age structure in 2010 of the population in the most urbanised localities (with 100,000 or more inhabitants or metropolitan) is contrasted with that of rural villages (with fewer than 2,500 inhabitants). It is quite clear that rural areas have a lower proportion of the population between 20 and 60 years old than do



6.2 Population pyramid, 2010 (source: 1910–2000: Pacheco and Sánchez (2012: cuadro 1); 2010: Censo de Población y Vivienda (National Census) for 2010 (INEGI 2011). (source: INEGI (2011))

Note: Men are shown on the left side of the pyramid, women on the right.

metropolitan areas; and this contrast is even stronger for the population whose ages range from 25 to 35. Hence, there is a larger proportion of the population under the age of 15 and over 60 in rural zones. Migration, particularly international migration, means that children and youth are left in their localities of origin to care for the elderly. Pacheco and Sánchez (2012) point out that the higher proportion of the population of 60 years and over in rural localities may be explained by the fact that they are probably the owners of the land, which is why they remain there. But it also could mean that their age prohibits them from migrating, since travel might be arduous and, even if they migrated, employers would not hire them.

One possible hypothesis that arises from these findings is that the persistence of the peasantry in Mexico, despite migration, can be attributed to the ways in which peasant households are 'tied' to the land (partly as a result of the Agrarian Reform). Although these peasant households may be unproductive, the land constitutes a heritage that ensures the survival of the family nucleus through subsistence farming, the sale of agricultural products, or by obtaining rental income.

According to the Special Section on Agriculture (AM) of the National Employment Survey (ENE), in 2003, 26.4 per cent of the population in localities of up to 2,500 inhabitants lived in households in which some of their members stated that they were engaged in activities as peasant, farmer or *ejido* owners, which allows us to deduce that they own or possess land. This percentage is higher among households where income depends more on agricultural activity (Table 6.2). We can therefore assume that these types of households preserve peasant forms of production and that their members engage in wage work at certain periods of the year (for capitalist agricultural units or in other activities such as construction, commerce or services).

In other words, peasants in Mexico also depend on the existence of capitalist forms of production that enable them to complement their limited family resources through the sale of their labour power. Mexican peasants have therefore survived despite the fact that, since the mid-1980s, policy measures have been implemented that have benefited big business and have limited public investment in infrastructure for small farmers.

Medium and large landowners continued to receive federal government support through programmes such as PROCAMPO

TABLE 6.2 The percentage of the population distributed according to the proportion of total household income represented by agricultural income, 2003

Percentage that agricultural income represents of the total household income	Landless households (%)	Households owning land (%)	Total
100%	65.6	34.4	100.0
50% of income or more	61.4	38.6	100.0
Less than 50% of income	62.4	37.6	100.0
Non-agricultural income	100.0	0.0	100.0
Total	73.6	26.4	100.00

Source: Authors' calculations based on the AM of the ENE.

Note: Includes earnings from work only.

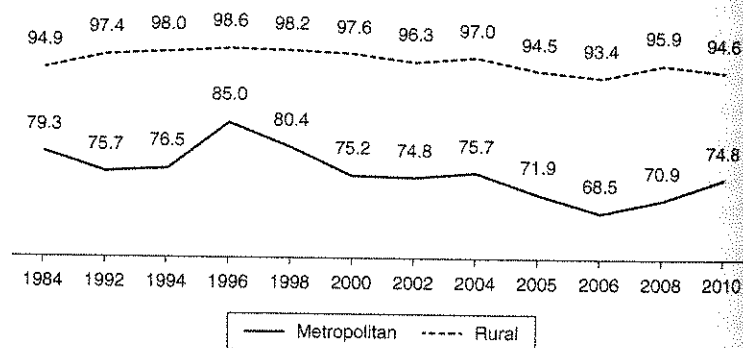
(Programa de Apoyos Directos al Campo, or Direct Support for the Countryside Programme)⁹ and ASERCA (Agencia de Servicios a la Comercialización y Desarrollo de Mercados Agropecuarios, or Support and Services for Agricultural Commercialisation) (Yúnez Naude 2010), since they were designed to provide resources according to the number of hectares or tons produced. Smallholders, including Mexican peasants, were therefore relatively deprived of these benefits. Thus, in 2006, 23.9 per cent of those who received PROCAMPO had plots of land of up to 1 hectare¹⁰ and received just 0.6 per cent of the transfers, whereas farmers with 5 hectares or more (22.5 per cent of the total number of production units) received 53.3 per cent of the transfers. The remaining subsidies were given to farmers with between 1 and 5 hectares of land (Merino 2010: Chart 2). Such inequality in the allocation of governmental transfers is also observed at state level. States with a low level of rural poverty (Sinaloa, Tamaulipas, Zacatecas and Jalisco) have received most of the benefits of ASERCA, PROCAMPO and the Target Income Programme¹¹ (ibid.).

3. Poverty in Mexico's rural setting

This section refers to poverty in rural areas calculated using the Integrated Poverty Measurement Method (IPMM)¹² to process micro-data from the National Household Income and Expenditure Survey (Encuesta Nacional de Ingresos y Gastos de los Hogares or ENIGH). This survey does not have enough information to analyse

the work-employment strategies used by Mexican peasants in order to obtain the income that would enable them to survive for a period of more than one month. However, the agricultural module of the ENE does include this information. The ENIGH provides a broader view of the deprivation suffered by the population in rural zones in Mexico, since it contains more detailed information on well-being compared with the ENE, the main objective of which is to record information on people's economic activity. In turn, the ENIGH has information on all sources of income, not only labour income (as does the ENE), but also government transfers, remittances, presents, pensions, and so on. At the same time, the ENIGH provides a detailed account of housing conditions, water and drainage services, durable goods, consumption expenditures, including expenditures on education and health, and overall a larger number of variables than are included in the ENE. It should be pointed out that we will also present data on poverty using the ENE, but this data will refer only to labour income.¹³

Poverty in the rural areas in Mexico is extremely generalised. As one can see from Figure 6.3, in 2010 the incidence of poverty measured using the IPMM was nearly identical to that found in 1984: around 95 per cent of the population in rural areas. We should remember that this last year reflected the impact of the 1982 crisis, meaning that Mexico is facing the persistence not only of peasants but also of widespread, entrenched poverty.



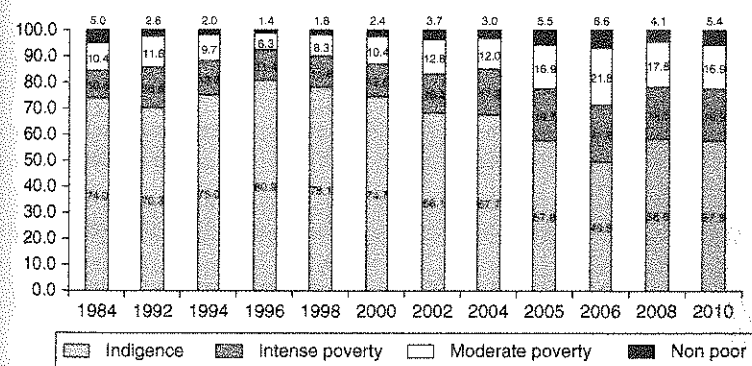
6.3 The percentage of people living in poverty in rural and metropolitan settlements (source: Boltvinik et al. (2012))

Note: Based on IPMM.

To illustrate the territorial inequalities in Mexico, we also included the level of poverty in the country's metropolitan zones (with over 100,000 inhabitants) in the graph. As one can see, in 2010, the distance between the two types of localities was nearly twenty percentage points. Moreover, although the difference tends to decrease during crises, in large, urban localities poverty has tended to decline, whereas in rural settings it has remained virtually constant.

It should be noted that, although the percentage of people in rural poverty has not declined in recent years, poverty is currently less intense. This is reflected in the fact that the indigent population (which meets fewer than 50 per cent of the thresholds used as criteria *not* to be poor) fell from 74 per cent of the total in 1984 to 57.8 per cent in 2010. Conversely, the stratum of people in intense poverty (which meets 50 per cent to 66.6 per cent of the criteria) nearly doubled: from 10.5 per cent to 19.9 per cent. Lastly, the population in moderate poverty (which meets over 66 per cent but under 100 per cent of the criteria) rose from 10.4 per cent to 16.9 per cent (Figure 6.4).

From a multidimensional perspective, so far we have seen that deprivation in the rural setting is extremely acute and generalised. Even considering the income variable only, poverty incidence is also extremely high. Although we will be mainly analysing income poverty as measured using the agricultural module (AM) of the ENE, for comparative purposes and to cover the years after 2003 (when the



6.4 Rural population by poverty strata, 1984–2010 (source: Boltvinik et al. (2012))

Note: Based on IPMM.

last AM was applied), we also calculated income poverty in rural areas in 2004 and 2010 using the respective ENIGH databases. As shown in Table 6.3, although the percentage of income-poor people rose slightly (from 92.3 per cent to 94.7 per cent), poverty intensity (or the poverty gap) decreased, as reflected in the fall in the incidence of indigence from 71.6 per cent to 57.0 per cent.

Table 6.4 shows the results of labour income poverty measured using the ENE by settlement size. As one can see, labour income poverty in localities with fewer than 2,500 inhabitants is almost the same as in the following stratum by settlement size (2,500 to 14,999). However, as we shall see later on, both the number of workers in the agricultural sector and agricultural income are extremely low in this second class of localities. Labour income poverty in localities with 15,000 to 99,999 inhabitants drops significantly (64.5 per cent), which is similar to the findings using data from the ENIGH.

At this point, it is important to highlight the fact that the incidence of income poverty resulting from both surveys is quite different, as the available information and the procedures adopted to measure poverty differ. Using ENIGH data in 2004, 92.4 per cent of the population was identified as poor in localities with fewer than 2,500 inhabitants, whereas in 2003, using ENE data, we identified 79.6 per cent of the same population as poor (Tables 6.3 and 6.4). This

TABLE 6.3 Income poverty in rural areas (percentage of the total population), 2004 and 2010

Income poverty strata	2004	2010
Indigence	71.6	57.0
Intense poverty	10.4	20.4
Moderate poverty	10.2	17.2
Total poverty	92.3	94.7
Income satisfaction ¹	6.1	3.0
Middle class ²	1.5	1.9
Upper class ³	0.1	0.5
Non-poor	7.7	5.3

Source: Authors' calculations based on the ENIGH.

Notes: ¹ Income between the poverty line (PL) and less than 1.1 times the PL; ² Income between twice the PL and less than 1.5 times the PL; ³ Income 1.5 times the PL or more.

TABLE 6.4 Labour income poverty by settlement size (percentage of the total population), 2003

Poverty strata (LF)	15,000–99,999 inhabitants	2,500–14,999 inhabitants	Fewer than 2,500 inhabitants	Total
Indigence	20.2	43.5	45.5	42.8
Intense poverty	13.8	15.8	13.0	13.8
Moderate poverty	30.5	20.7	21.1	21.8
Total poverty	64.5	80.0	79.6	70.9
Income satisfaction	28.7	16.6	16.9	17.8
Middle class	5.8	3.3	3.2	3.5
Upper class	1.0	0.1	0.3	0.3
Non-poor	35.5	20.0	20.4	29.1

Source: Authors' calculations based on the ENE.

Note: 'Income' includes earnings from work only.

difference is largely due to the fact that the poverty line adopted to compare with income in the ENE is 22 per cent lower than the one adopted for the ENIGH. (This difference occurs because an adjustment was necessary to take into account the restricted nature of income measured by the ENE, where only income derived from working activities or labour income was counted.) However, as the adjustment relied on an average value (the percentage that labour income represented in total income in rural areas: 78 per cent), the procedure used underestimated poverty (by underestimating the poverty line) in households that depend only on labour income or depend on it more than the average, since the ENE does not show which households receive transfers, gifts, remittances, and so on. Calculations based on the ENE also show (as do those based on the ENIGH) that in rural areas indigence constitutes the largest poverty stratum (45.5 per cent), but they show moderate poverty as a larger percentage than intense poverty (21.1 per cent compared with 13.0 per cent), inverting the results based on the ENIGH.

Although the intensity of rural poverty has declined according to the ENIGH figures, there has been a relative reduction in the importance of income from wages in agricultural gross domestic product (GDP). According to Puyana and Romero (2008: 178, Graph 8.1), whereas in the period 1980–83 the proportion of income from agricultural

wages was above 20 per cent, since 1984 a nearly constant fall has been observed and these wages now account for only 12 per cent of the total, whereas the share of capital has increased, representing almost 90 per cent of GDP. These authors also show that the share of rural households in the national household income total, which in 1989 was 20 per cent, had been reduced to 13 per cent by 2012 (*ibid.*: 182, Graph 8.2). They also show that income distribution has deteriorated in these zones, as the real household income of deciles one to nine declined between 1989 and 2002 while the income of the tenth decile increased significantly (*ibid.*: 194, Graph 8.5).

4. Activities in rural contexts and family composition

As mentioned earlier, the Statistics Institute of Mexico (Instituto Nacional de Estadística, Geografía e Informática or INEGI) applied an agricultural module (AM) in less urbanised zones (with fewer than 100,000 inhabitants) during the period 1991–2003 within the framework of the ENE. This source of information enabled us to find out more about the characteristics of agricultural workers. The AM asked whether workers had engaged in activities corresponding to the agricultural sector during the past six months, unlike the usual question in employment surveys that records information only on the previous week.

The change in the period of reference – from one week to six months – shows that the volume of work carried out in agriculture is inaccurately recorded when the period of reference is last week. For example, in 2003 the AM recorded 1.5 million additional workers in this sector (in relative terms, around 13 per cent of the agricultural labour power estimated using the AM) compared with those who would have been recorded if the information had referred to the week prior to the application of the survey. This result constitutes the first evidence of the high level of intersectoral occupational mobility of agricultural workers in Mexico, in a context in which the seasonality of production plays a central role.¹⁴

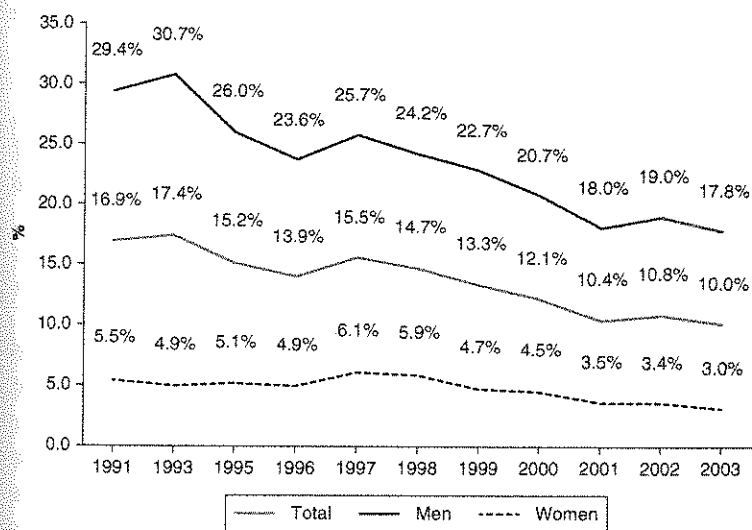
We should bear in mind the fact that, regardless of the greater or lesser under-registration of agricultural workers using periods of reference shorter than a year, there is a secular process of reduction in the number of agricultural workers. Particularly during the period of the strengthening of the North American Free Trade Agreement (NAFTA; 1995–2003), the proportion of agricultural workers in

relation to the working age population at the national level dropped from 15 per cent to 10 per cent (Figure 6.5), which, in absolute terms, actually involved a reduction in the number of agricultural workers from 10.6 million to 7.7 million.¹⁵

It should be noted that the period on which the AM was carried out (1991–2003) included one of the greatest crises in Mexico (1995), and this affected the agricultural sector. Moreover, the entry into force of NAFTA (1994) affected the productive bases of all the economic sectors and therefore of agriculture.

The agricultural working population in Mexico is primarily male. As shown in Figure 6.5, the decrease in the proportion of working men is much greater than among women. This decrease occurred within the context of enormous difficulties in agricultural production, in conjunction with the increase in labour-saving processes.¹⁶ Given these results, is it still possible to talk about the persistence of the peasantry?

Given that the agricultural module (AM) of the employment survey in Mexico was applied in the areas classified as less urbanised – localities with fewer than 100,000 inhabitants – we believe it is relevant to first determine the importance of agricultural labour by



6.5 Share of agricultural workers in the working age population, 1991–2003 (source: Pacheco Gómez (2010))

settlement size. Based on the information in this module, we found that, in 2003, most of the population that worked in the agricultural sector was located in rural areas (localities with fewer than 2,500 inhabitants): 76.7 per cent (Table 6.5). In these localities, 59.1 per cent of the labour force was engaged in agricultural activities, whereas in the next two larger sizes of localities (2,500–14,999 and 15,000–99,999 inhabitants) the proportion was 23.7 per cent and 6.2 per cent respectively.

The pattern of spatial distribution of agricultural labour was very similar in 1991 (Pacheco Gómez 2010) and has remained virtually unchanged. In order to support this statement, since the AM contains information only up to 2003, we will use information from the 2010 population census. As can be seen in Table 6.6, agricultural activities, according to this source, were mainly carried out in rural localities, where agricultural workers still constituted practically half of the labour force, whereas in the next two larger locality sizes (2,500–14,999 and 15,000–99,999 inhabitants) the percentage drops to 19.0 per cent and 6.2 per cent respectively.¹⁷

At the household level, we observe different degrees of labour participation in agricultural activities. According to the AM, in 2003, 64.3 per cent of households in rural contexts (localities of fewer than 2,500 inhabitants) had household workers engaged in some

TABLE 6.5 Share of workers in agricultural activities by settlement size, 2003

Size of the locality (no. of inhabitants)	Non-agricultural workers	Agricultural workers	Total
<i>Horizontal percentage</i>			
15,000–99,999	93.6	6.4	100.0
2,500–14,999	76.3	23.7	100.0
Fewer than 2,500	40.9	59.1	100.0
<i>Vertical percentage</i>			
15,000–99,999	40.1	4.9	27.9
2,500–14,999	31.5	18.4	27.0
Fewer than 2,500	28.3	76.7	45.2
Total	100.0	100.0	100.0

Source: AM of the ENE, 2003.

Note: The reference period is the last six months.

TABLE 6.6 The percentage of workers in agricultural and non-agricultural activities by settlement size, 2010

Size of the locality (no. of inhabitants)	Non-agricultural workers	Agricultural workers	Total
<i>Horizontal percentage</i>			
15,000–99,999	93.8	6.2	100.0
2,500–14,999	81.0	19.0	100.0
Fewer than 2,500	50.6	49.4	100.0
<i>Vertical percentage</i>			
15,000–99,999	40.8	7.3	40.2
2,500–14,999	31.3	19.6	28.1
Fewer than 2,500	27.9	73.1	31.7
Total	100.0	100.0	100.0

Source: INEGI (2011).

agricultural activity (Table 6.7). Yet, very few rural households were able to live exclusively off the land, since only 8.3 per cent had *all* household workers engaged in agricultural activities. Nevertheless, this percentage is still high when compared with those observed in larger localities.

There was still a significant group of households (31.6 per cent) in rural localities with over 50 per cent of their family labour engaged in agricultural activities. Another 24.4 per cent of households had family labour that was more than 50 per cent non-agricultural but had some of their members engaged in agricultural activity. This broad participation in agricultural activity by households in rural contexts points to the ‘persistence of the peasantry’ and also to the insufficiency of income obtained from agriculture in most rural households.

However, we must understand the nature of this participation in order to more adequately answer one of the central questions in this book: is the seasonality of agriculture an aspect that contributes to understanding peasants’ poverty? What are the forms of labour force participation of the rural population and what are the differences according to the type of household?

As we remarked at the beginning of this study, one factor that may explain families’ continued engagement in agricultural activity is their access to land possession or ownership, either as part of

TABLE 6.7 Households according to the proportion of members engaged in agriculture (percentage by settlement size), 2003

	Settlement size (no. of inhabitants)			Total
	15,000–99,999	2,500–14,999	Fewer than 2,500	
Composition of the labour force at the household level				
All household workers engaged in agricultural activities	0.8	2.6	8.3	4.7
More than half of household workers engaged in agriculture	3.1	12.4	31.6	18.5
Less than half of household workers engaged in agriculture	5.2	14.6	24.4	16.4
All household workers engaged in non-agricultural activities	90.8	70.3	35.7	60.3
Total	100.0	100.0	100.0	100.0

Source: AM of the ENE, 2003.

Note: The figures consider household members' labour participation in the last six months.

an *ejido* or community, or as smallholders. Although the AM did not identify whether workers are landowners, we have considered farmers and *ejido* owners as an indirect indicator of land ownership or possession, and we have called them peasants. This assumption is based on the fact that the rural active population that does not own land is usually recorded as wage workers in the rural context (basically day workers or unpaid family workers). Peasants account for only 11.7 per cent of the working age rural population, but 22.9 per cent of the occupied population and 38.7 per cent of the agriculturally occupied, while wage agricultural workers represent 18.5 per cent (36.2 per cent and 61.3 per cent respectively), and non-agricultural workers represent 20.9 per cent of working age population and 40.9 per cent of occupied rural population (Table 6.8, vertical percentages; some figures given in the text are not shown in this table but can be calculated from it).

It is generally assumed that rural poverty is related to the low labour force participation rate (LFPR). This assumption is derived from the low LFPR calculated on the basis of the person's condition of activity in the previous week. Although in Mexico there is not much difference between the rural and urban LFPR (in 2003, 51.9

TABLE 6.8 Population of 12 years and over in rural areas by their work status and branch of activity, according to the proportion in which household workers are engaged in agricultural activities (percentage), 2003

	Household composition				
	All agric. workers	50% or more agric. workers	Less than 50% agric. workers	Non-agric. workers	Total
Type of worker	Vertical percentages				
Peasants	29.5	18.8	12.9	—	11.7
Wage agricultural workers	61.1	34.1	13.8	—	18.5
Non-agricultural workers	—	7.1	16.3	43.6	20.9
Unemployed	—	0.0	0.2	0.5	0.2
Inactive	—	34.9	54.5	55.9	45.9
Others	9.4	4.9	2.3	—	2.8
Total	100.0	100.0	100.0	100.0	100.0
	Horizontal percentages				
Peasants	13.9	49.6	36.5	—	100.0
Waged agricultural workers	18.2	56.9	24.8	—	100.0
Non-agricultural workers	—	10.5	25.9	63.5	100.0
Unemployed	—	6.0	25.9	68.1	100.0
Inactive	—	23.5	39.4	37.1	100.0
Others	18.4	54.2	27.5	—	100.0
Total	5.6	30.8	33.2	30.4	100.0
	Labour force participation rate				
Participation rate	100.0	65.1	45.5	44.1	53.5

Source: AM of the ENE, 2003.

Note: The figures consider household members' labour participation in the last six months.

per cent and 55.4 per cent respectively), when we take the past six months to estimate this rate, we can see that the rural rate comes closer to that observed in urban settings (53.5 per cent versus 55.4 per cent in 2003). The increase in the LFPR in rural areas might be explained by the characteristics of production, particularly the seasonality of agricultural activities. Moreover, the lower rate in

rural areas, when it is calculated using the previous week, also shows the lack of employment opportunities in rural contexts during idle periods. This, in turn, contributes to the very high poverty level observed in rural localities.¹⁸

As Table 6.8 shows (horizontal percentages), only 5.6 per cent of the total population of 12 years and above lives in households in which all members of this age group are engaged in agricultural activities; however, they represented 13.9 per cent of peasant workers. This type of household is heavily dependent on wage work, since 61.1 per cent of their members belong to this category (Table 6.8, vertical percentage), and only 29.5 per cent belong properly to the peasant category; this shows that the majority cannot survive by producing only on their own land. It can also be seen that none of their members experienced unemployment, and that there is no inactive population. Indeed, their LFPR was 100 per cent, suggesting that adults in this type of household cannot afford not to work.

Table 6.8 also shows that 30.8 per cent of the population of 12 years and above in rural areas lives in households in which more than 50 per cent and less than 100 per cent of their working age members are engaged in agriculture. Most of the peasant and wage agricultural workers live in this type of household (49.6 per cent and 56.9 per cent respectively; Table 6.8, horizontal percentages). Compared with the previous type of household, this type depends less on wage agricultural work (34.1 per cent). Moreover, above a third of their working age population is inactive (vertical percentages). This shows that it is unlikely that these peasant households can devote themselves exclusively to production on their own land.

It can also be seen that, in households where most or all of their members are engaged in non-agricultural activities, there is a much higher proportion of inactive population. This might be explained by the fact that in non-agricultural activities wages tend to be higher on average than in agricultural activities.

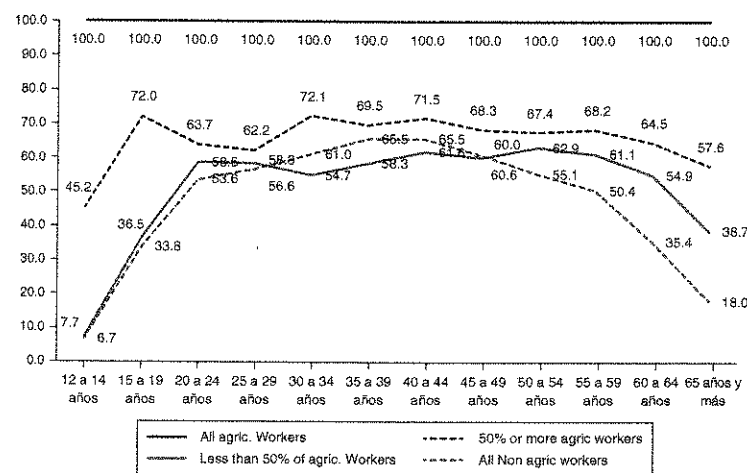
The urgency of having to work when household income depends largely on agricultural activity is clearly expressed in the LFPR of individuals who belong to households where all workers are engaged in agriculture. As one can see in Figure 6.6, rates here are 100 per cent for all age groups and are much higher than in households in which the majority of members participate in the non-agricultural sector. Differences are even sharper in the groups at either end of the

age range (children and senior citizens). In households that depend exclusively on agriculture, members are all forced to work at very young ages and they must continue working even into old age.

Households with less than 50 per cent of their labour in agricultural activities have a similar LFPR to households with no agricultural labour (Table 6.8). Participation rates by age are also similar between the two groups (Figure 6.6). Once again, we find data suggesting that poverty is more widespread among the population that relies most heavily on agricultural activity; this may explain why households in this group have a higher proportion of their members working throughout their lives.

When the composition of only the occupied population is analysed, we can see that more than a fifth (21.2 per cent; Table 6.9) of workers were peasants in 2003, and an additional 35.9 per cent were wage agricultural workers. The sum of both categories is 57.1 per cent, showing that the combination of peasant production with wage employment is an essential key to economic activity in rural areas.

In order to contribute to the discussion on the link between peasant poverty and peasant persistence, we classified the households in the AM of the ENE in such a way as to be able to locate the



6.6 Labour force participation rate by age and household working structure (percentage of the working age population), 2003 (source: AM of the ENE, 2003)

TABLE 6.9 The percentage of occupied workers in rural areas by their working status and type of household composition (percentage of total workers), 2003

	Household composition				
	All agric. workers	50% or more agric. workers	Less than 50% agric. workers	Non-agric. workers	Total
Type of worker					
Peasants	2.9	10.5	7.7	0.0	21.2
Wage agricultural workers	5.5	21.0	9.3	0.0	35.9
Non-agricultural workers	0.0	6.9	13.5	22.5	42.9
Total	8.4	38.5	30.6	22.5	100.0

Source: AM of the ENE, 2003.

role of peasants within the work dynamic of rural contexts. This classification includes six categories:

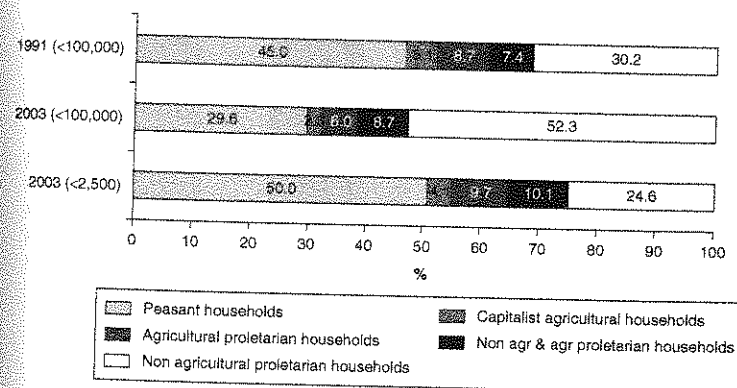
1. peasant households: households comprising persons who reported being smallholders, occupants, lessees or sharecroppers and *ejido* owners, who mainly engage in farming on their own land and/or plant their backyards, for their own use or sale, and where family labour is crucial;
2. farmers (capitalist) households, which comprise those who mainly produce for sale (i.e. commodities) on land under irrigation and on medium-sized (50 to 100 hectares) and large (over 100 hectares) plots of land;
3. agricultural proletarian households: households comprising day workers, workers or employees in the agricultural sector;
4. non-agricultural proletarian households;
5. mixed proletarian households that include wage workers in both agricultural and non-agricultural activities); and
6. households comprising persons who do not engage in economic activities. In the following empirical analysis, the last category is excluded.

We can describe economic participation by these types of household for 2003 in rural areas, but we are not able to analyse how it changed between 1991 and 2003 specifically in rural areas (localities with fewer than 2,500 inhabitants), since the information

from the AM in the 1990s was representative only for localities with fewer than 100,000 inhabitants as a whole. However, we can see the changes observed in this broader group of localities.

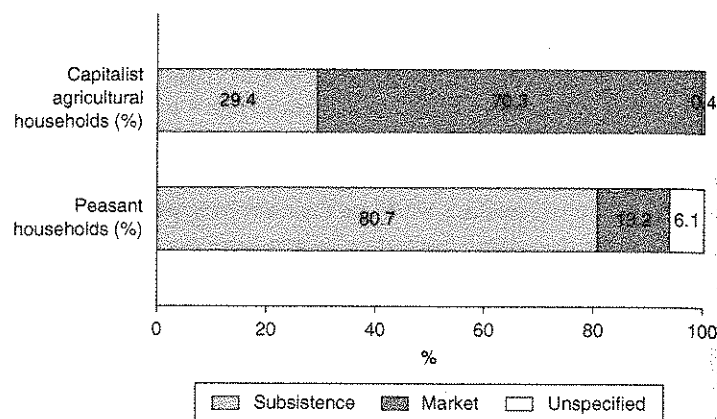
In localities with fewer than 100,000 inhabitants, the employed population of peasant households fell from 45.0 per cent to 29.6 per cent of the employed total between 1991 and 2003, whereas the percentage corresponding to non-agricultural proletarian households rose from 30.2 per cent to 52.3 per cent (Figure 6.7). This might suggest that there is a de-agriculturalisation of economic activity. However, the information for 2003 (which disaggregates rural areas from the group of localities with less than 100,000 inhabitants) suggests that this de-agriculturalisation might have occurred in localities with more than 2,500 inhabitants, while in rural localities the 'persistence of the peasantry' and the overwhelming importance of agriculture are maintained: the active population in peasant households accounted for 50 per cent, whereas it was only 24.6 per cent in non-agricultural households (Figure 6.7).

On the basis of this finding, let us examine the group of peasant households in rural contexts in order to determine the conditions and purpose (the destination of crops) of their production during the last year of the AM (2003).¹⁹ First of all, most of the employed population located in peasant households declare that they produce for home consumption (80.7 per cent), whereas this crop use in capitalist agricultural households accounts for only 29.4 per cent

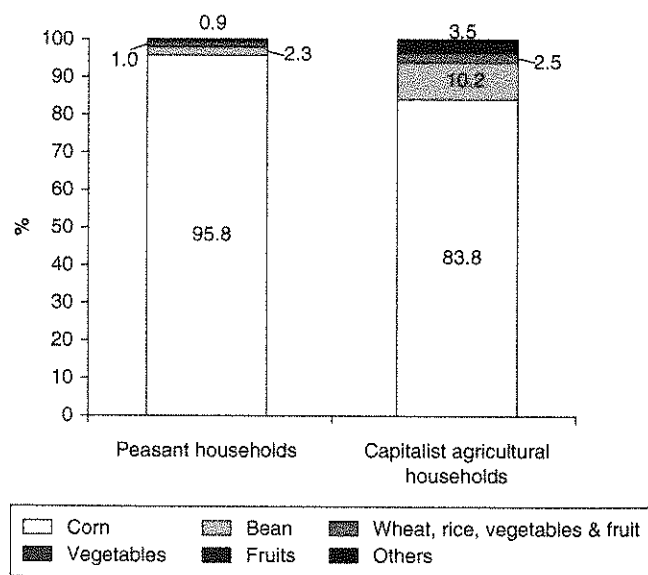


6.7 The distribution of the labour force by household type and by settlement size (percentage), 1991 and 2003 (source: AM of the ENE, 1991 and 2003)

of total production (Figure 6.8). The information shows that maize production represents an overwhelming proportion of crops cultivated for subsistence, even in the case of capitalist agricultural households (Figure 6.9).



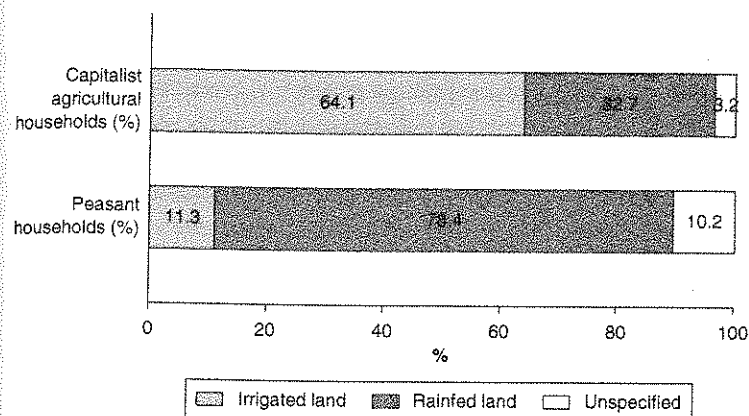
6.8 The labour force with land by household type and crop destination (percentage) (source: AM of the ENE, 2003)



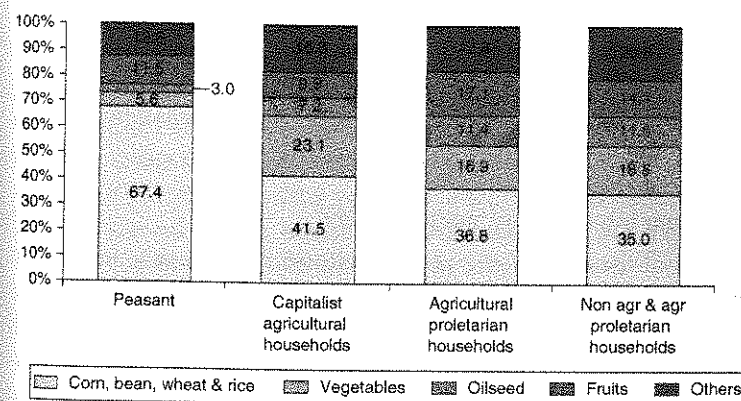
6.9 The labour force by crop cultivated for self-consumption in rural areas (percentage), 2003 (source: AM of the ENE, 2003)

Figure 6.8 also shows that capitalist agricultural households mainly produce for the market (70.3 per cent), whereas in the case of peasant households this accounts only for 13.2 per cent. This situation is closely linked to the type of land available to peasants and capitalist agricultural households. While peasants mainly have rainfed land, capitalist agricultural households rely mostly on irrigated land (Figure 6.10).

Figure 6.11 shows the structure of labour occupation, by groups of crops, in different types of households. While two-thirds of the labour



6.10 Labour force with land by type of unit and water source in rural localities (percentage), 2003 (source: AM of the ENE, 2003)



6.11 Labour force by household type and crop type in rural areas (percentage), 2003 (source: AM of the ENE, 2003)

force in peasant households are employed in the production of basic cereals (mainly maize) and beans, labour in capitalist households (a minority, if we recall that they represent only 5 per cent of the employed population) and in both types of proletarian households (agricultural and mixed) is distributed in a more diversified way. Basic cereals and pulses represent between 35.0 per cent and 41.5 per cent of labour occupation, while vegetables, fruits, oilseeds and other crops represent a high proportion.

It should also be noted that capitalists control market prices. According to Appendini (2001: 22):

corporate maize farmers account for less than 1% of all the country's grain producers yet contribute 15% to 20% of production and determine the variations in supply on the basis of profitability. Conversely, it is estimated that 60% of the internal grain supply and 40% of the commercialised supply comes from what one could call peasant production units.

For her part, Rubio (2004: 42) states that:

One of the characteristics of the current phase of production is that crops that occupy a smaller area and involve a lower number of producers become the leading crops and impose their operating logic on the aggregate of producers in the area. Whereas grains and oilseeds occupy 64.5% of the area, producing 49.9% of rural employment, 39.9% of value and 5.1% of foreign currency, fruit and vegetables, which only occupy 8.6% of the country's total area, but create 22.6% of rural employment, contributing 34.6% of value and 62.7% of foreign currency (Schwentenius and Gómez Cruz).

5. Labour intensity and 'multi-activity'

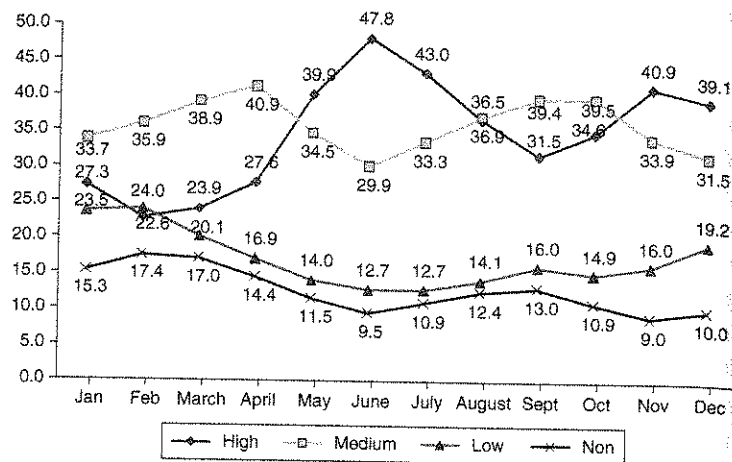
One of the aspects of peasant production continually mentioned in studies of rural areas is 'multi-activity'. In some studies, this phenomenon is framed from the perspective of occupational mobility (Ramírez 2005), whereas in others the focus is on the various labour combinations that may occur in a domestic unit (Guzmán Gómez and López 2005; Garay 2008). Still others frame the discussion from the perspective of the various sources of income produced in rural families

(Reardon and Berdegue 1999; Taylor and Yúnez-Naude n.d.; Carton de Grammont 2007; Yúnez and Meléndez-Martínez 2007).

In other words, the issue of 'multi-activity' can be seen from various perspectives. Individuals can engage in various occupations, whereas, within the household sphere, its labour members may be engaged in pluri-activity – a topic dealt with in the previous section – in order to have different sources of income. At the territorial scale, certain family members may work outside the country and/or in different regions within the country. Some of them may send remittances, whereas other family members stay in the domestic unit and engage in agricultural and/or non-agricultural activities. We consider that this situation is largely due to the seasonal nature of agricultural work and, therefore, we first need to obtain information on the number of months in which people engage in a particular agricultural activity during the year, according to the answers given in the AM.²⁰ Second, the job itineraries of individuals over a period of six months are analysed. In addition to the information on the months in which people took part in agricultural activities, the module recorded the intensity (high, medium and low) with which they carried out their work. This provides us with elements to explore the proposal formulated by Boltvinik regarding the fact that:

capitalism cannot exist in a pure form in agriculture: *without the peasants' supply of cheap seasonal labour, capitalist agriculture would be impossible. There would be (virtually) no one prepared to work only during the sowing and harvesting periods.* (Chapter 1, section 1)

The seasonal nature of agricultural activity is clearly reflected in Figure 6.12. It shows that, during the winter period (December, January and February), a higher percentage of workers report not having had any activity or that their activity was of very low intensity compared with the rest of the year. The intensity of agricultural work starts an upward trend in March at the beginning of spring; it becomes the highest (above medium intensity) in May and reaches a peak in June, with 47.8 per cent of those engaged in agriculture reporting a high intensity of work. This period corresponds to the sowing of maize and beans, activities that require intensive work. The figure shows that, during the months from October to November, the proportion of workers with intense productive activity (which had reached a minimum in September) increases again; this corresponds to the



6.12 Intensity of work per month in settlements of fewer than 2,500 inhabitants (percentage of agricultural workers), 2003 (source: AM of the ENE, 2003)

harvest periods. The changes in the intensity of work at key points in agricultural production reflect the seasonality of agriculture.

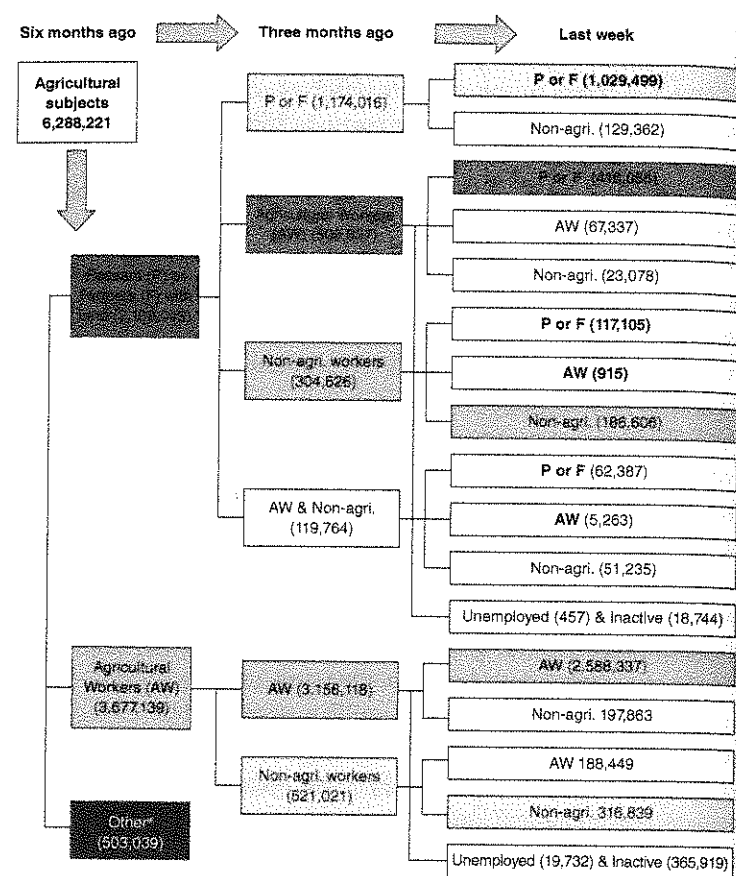
Figure 6.12 also reflects that, throughout the year, there is a need to undertake a series of agricultural activities (weeding, spraying insecticides and fertilising, for instance) that may be associated with workers who report engaging in medium-intensity labour activities, the percentages of whom fluctuate just below and around 40 per cent of the total agricultural labour force during the months of August to October (during which the maize harvest begins). Lastly, the seasonality of agriculture is also reflected in the low intensity of work during the coldest months: January and February.

The seasonality of agricultural work is not recorded in traditional employment surveys, since, as we mentioned earlier, the period of reference for recording activity status is the previous week. Expanding this period to six months (as happened in the AM) showed that the total volume of workers in this activity increased substantially (by a million and a half workers in 2003). Moreover, when asked why they do not work the whole year, most workers declared that their work is seasonal (66 per cent in 2003, a percentage that did not change substantially during the period under study).

In order to answer the question about which activities are carried

out in a context of fluctuating seasonal work requirements in agriculture, we will analyse the agricultural labour itineraries. The information refers to the changes observed in the worker's activity status (employed, unemployed or inactive) and occupational position (peasant or farmer with land, wage or unpaid worker) in three different moments: six months ago, three months ago and the previous week (Figure 6.13).²¹ We have distinguished seventeen work itineraries. For example, these itineraries include having been a peasant or farmer in the three specific points in time²² (a trajectory identified as P or F/P or F/P or F; see Figure 6.13), or just an agricultural worker (waged and/or unpaid) (AW/AW/AW), or having been a worker but being occupied in agricultural and then in non-agricultural activities (AW/AW/Non-agri). Twelve itineraries correspond to farmers and five to workers (Figure 6.13). With the information obtained from the AM, one could say that the number of peasants, farmers and agricultural workers recorded in this survey depended primarily on the period under study: the further back workers are asked about their participation in agricultural activities, the greater the likelihood of identifying peasants. It is important to note that this situation did not change substantially between 1993 and 2003.

In 2003, in rural areas 6.29 million respondents were defined as agricultural workers, out of a total of 17.9 million persons of working age. A total of 2.11 million said that they were peasants or farmers, while 3.68 million declared that they were agricultural wage or unpaid workers (Figure 6.13). Among the peasants or farmers, 1.03 million reported having had an itinerary without occupational mobility, accounting for 16.4 per cent of agricultural workers (P or F/P or F/P or F). There is a type of itinerary where a person remains in agricultural activities yet changes their work status: peasants or farmers who were wage (or unpaid) workers during the previous three months (0.510 million); most of them (0.416 million) had returned to their condition of peasants or farmers in the previous reference week. The rest had remained as agricultural wage workers (0.067 million) or had moved to non-agricultural wage activities (0.023 million). The third largest group corresponds to peasant or farmers who moved to off-farm activities (0.305 million). More than a third of them (0.117 million) had returned to being peasants or farmers in the previous reference week, while a larger proportion (0.187 million) had remained as non-agricultural workers.



a. Occupant, tenant, lessee, landless livestock producers

6.13 Mobility itineraries of the agricultural labour force, 2003 (source: AM of the ENE, 2003)

Note: Includes occupants, tenants, lessees and landless livestock producers.

In the case of agricultural wage or unpaid workers, most of them reported having had an itinerary without agricultural mobility (2.59 million out of 3.68 million workers); they represent 41.2 per cent of the total who described themselves as agricultural subjects (AW/AW/AW). Additionally, 0.521 million became non-agricultural workers in the previous three months. In this case, the majority (0.317 million) had remained in non-agricultural work in the previous week, and the rest (0.188 million) had become agricultural workers again during that same time period.

Lastly, there are two groups of itineraries in which agricultural workers had become unemployed or inactive during the week of reference.

Because of the job mobility of workers in different moments of the year, we can state that the employment surveys that refer to activity during the previous week generate data that do not adequately reflect the actual numbers of those who depend on agricultural activities for their livelihood. As shown in Table 6.10, the percentage of peasants or farmers and agricultural workers is higher if the workers are asked about their occupational status and branch of activities in the six months prior to conducting the survey, compared with the percentage reported when they are asked about their position at work in the previous week. Thus, while 22.1 per cent of workers in rural areas declared that they were peasants or farmers six months ago, the percentage declined to 17.7 per cent when they were asked about their position at work during the previous week. In the case of wage (or unpaid) agricultural workers, 38.5 per cent described themselves as such when asked about their occupational status six months ago, compared with 31.1 per cent in the previous week. Taking together the two agricultural work positions, the six-month reference period gives a total of 60.6 per cent compared with only 48.8 per cent for last week (a difference of 20 per cent). Therefore, agricultural activities are greatly underestimated by traditional employment indicators used all over the world.

As we have seen, the unavoidable seasonality of agricultural activity causes fluctuations in the intensity of labour, the number of months worked, and the forms of participation in the labour force (agricultural,

TABLE 6.10 The percentage of workers in rural areas according to their position at work and branch of activity six months ago and in the last week, 2003

Work status	Period of reference	
	Last six months	Last week
Peasant or farmers	22.1	17.7
Wage agricultural workers	38.5	31.1
Non-agricultural workers	39.0	50.5
Unemployed	0.5	0.7
Total	100.0	100.0

Source: Authors' calculations based on the AM of the ENE, 2003.

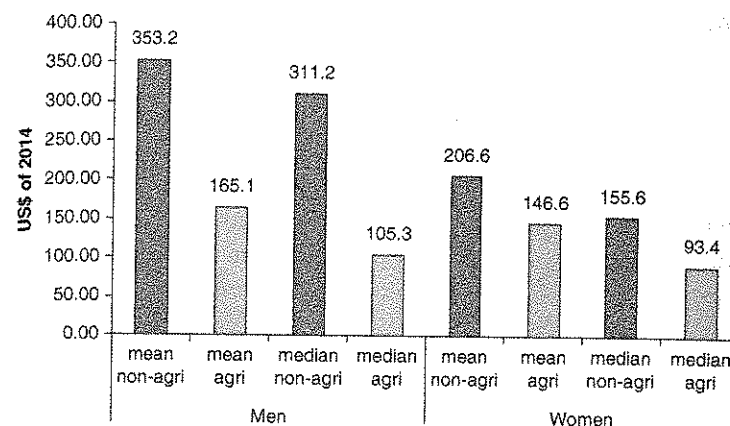
non-agricultural and without activity). Agricultural workers and peasants have to use various work strategies to maintain a minimum income throughout the year; in 2003, they composed 60.6 per cent of the occupied population in rural areas. The rest of the active population recorded by the AM (39.4 per cent) had more stable itineraries as they were occupied in essentially non-seasonal activities. The mobility of the agricultural labour force shows that agricultural households need to diversify their sources of income. We must also consider the fact that the population recorded by the survey does not reflect the total mobility that is actually occurring for two reasons. The first is that it interviews only those who engaged in agricultural activity over the past six months, even though we saw how labour requirements vary throughout the year. At the same time, those who migrated at the time of the interview are not included in the analysis. We therefore assume that agricultural labour mobility is even greater than what the data show.

In addition to the need to diversify the sources of income in households that depend largely on agricultural activity, workers earn very low wages and face precarious labour conditions, as we shall see in the following section.

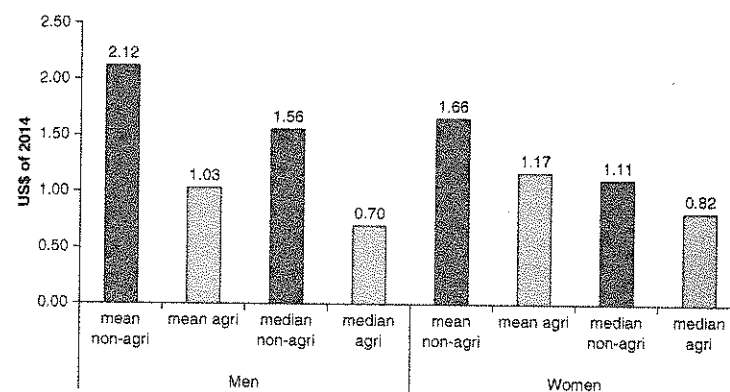
6. Working conditions of the rural population: a poor, persistent peasantry

As has been shown by Pacheco and Sánchez (2012), farm workers are poorer than non-farm workers in terms of income and social security. Wages for agricultural workers are noticeably lower than for non-agricultural workers. Women engaged in farm work earn almost a third less (29 per cent) than female non-farmer workers (Figure 6.14). According to Garay (2008) this difference is probably one of the factors that drove women in rural contexts towards growing participation in non-agricultural activities. However, wage differences are worse in the case of men. Thus, the mean wage for male agricultural workers represents only 46.7 per cent of the non-agricultural mean (Figure 6.14).

As shown in Figure 6.15, the same pattern is observed in terms of hourly wages. Thus, the mean wage for non-farm male workers was \$2.12 an hour in 2003, while those engaged in agricultural activities had a mean of \$1.03 per hour (less than half). While this comparison does not account for differences in qualifications between activities, the gap is wide enough to show how poorly paid jobs are in rural areas



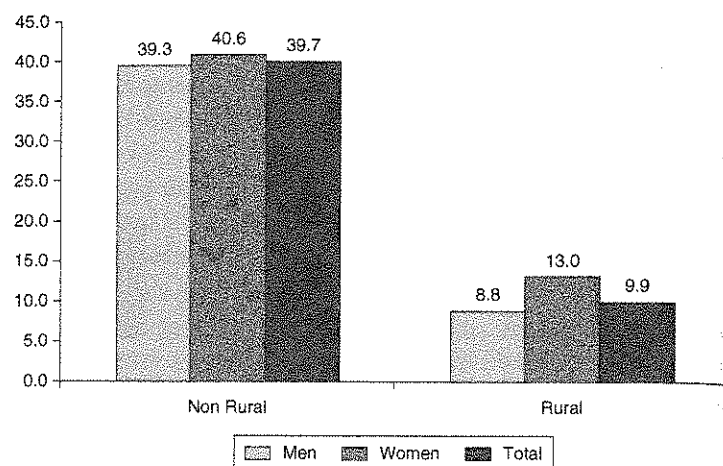
6.14 Wages and salary earnings per month in rural areas, 2003 (source: Sánchez and Pacheco (2012))



6.15 Wages and salary earnings per hour in rural areas, 2003 (source: Sánchez and Pacheco (2012))

and one of the major reasons for migration and the abandonment of agricultural activities.

Farm workers tend to report shorter working days on average than those reported by non-farm workers, which may translate into lower total income. However, they may also under-report the number of hours they actually work. Farm workers may also under-declare the days worked per week (David et al. 2001). Lastly, the deprivation of agricultural workers is particularly acute, since only 9.9 per cent



6.16 The percentage of workers in rural areas with access to health services as a social security benefit (IMSS and ISSSTE), 2003 (source: IMSS and ISSSTE; Pacheco and Sánchez (2012))

of these workers had access to social security in 2003, in contrast with 39.7 per cent for non-rural workers (Figure 6.16). Rural male workers are in a worse situation compared with rural women in terms of access to social security (which includes health services).

7. Some final reflections

Through the information provided by the agricultural module (AM) of the ENE, we found that the vast majority of Mexican peasants and agricultural workers who live mostly in rural localities (defined as those with fewer than 2,500 inhabitants) live in poverty. We also found that their poverty is closely linked both to the seasonal character of agricultural activity and to the prevalence of very low wage levels.

The enormous poverty suffered by peasants is observed throughout their lifecycle. We found that the poorest had high rates of labour participation, even among the populations aged 12 to 17 and 65 and over. These two age groups have lower LFPRs in family contexts and structures where poverty is lower. When there is less poverty, the first age group devotes its time primarily to education, while the second group can 'afford' to withdraw from the labour market. However, in poor peasant contexts, these population groups are forced to

contribute their labour to guarantee the reproduction of the family nucleus.

At the same time, the results we obtained on poverty in rural contexts showed that the persistence of the peasantry requires poor households to adopt strategies to diversify their sources of income.

It can therefore be said that, in Mexico, there is evidence that the peasantry absorbs the economic and social costs of agricultural labour seasonality and instability of work, creating an ad hoc industrial reserve army.

Notes

1 The period of analysis is restricted, since these are the only years when the National Institute of Geography and Statistics (INEGI) included a special section on the agriculture sector in the National Employment Survey (Encuesta Nacional de Empleo or ENE).

2 We define rural areas as localities with fewer than 2,500 inhabitants. We are aware of the broad debate on the adequate threshold to identify rural settlements. However, later on, we will show that this particular threshold is appropriate for the purposes of this paper.

3 Company stores were supply stores belonging to the owners, who sold workers products whose cost (which was artificially inflated) was docked from their pay, forcing them to continue working for the same employer, and thus fostering a system of debt peonage.

4 The Agrarian Reform was stipulated in the national Constitution of 1917. It established land distribution through the division of latifundia; the development and protection of small property; and the allocation of land to new agricultural population centres or to those that lacked land in sufficient quantity, creating or restoring the *ejidos* and restoring communal land. The *ejidos* are a form of social organisation

with land allocated to them. Land was generally classified as land for collective uses and land for private family uses. The members of the *ejido* (*ejidatarios*) were given the right to make use of the land and to bequeath this possession to their heirs, although they did not own the land. In 1993, during the administration of Carlos Salinas de Gortari (1988–94), this law was reformed, enabling the *ejido* owners to sell individual plots.

5 Baja California is the only state with internationally competitive means of production; it is a state with low levels of poverty and a shortage of labour.

6 In 2008, 1.6 million households (out of 26.7 million) reported receiving remittances, which accounted for between 15 per cent and 44 per cent of their total income. Women-led households in rural areas have the highest percentage, since they are usually families in which the main provider has emigrated to the US (authors' calculations based on INEGI 2008).

7 Yúnez and Meléndez-Martínez (2007) note that international emigration significantly increases total household income and that most of this income is received through remittances.

8 According to Passel, the 2010 census shows that this volume was overestimated (Passel 2011). This author

suggests that the total population in Mexico was higher than what the National Population Council (CONAPO) had projected, but it is difficult to know whether the difference is due to emigration or, as has also been suggested, to the overestimation of the decrease in fertility rates. Boltvinik (2006), however, estimated that emigration during the years 2000–05 was 1.2 million per year.

9 Implemented in late 1993, it is a monetary transfer system where the amount is a function of the size of the cultivated land. It replaced a system of subsidies to inputs combined with a guaranteed price scheme for grains and oilseeds.

10 Five hectares are equivalent to 12.3 acres or 50,000 square metres.

11 Target income is the amount provided by the federal government to cover the difference between the market price and the minimum offered by the government for agricultural products (maize, wheat, sorghum, safflower, canola, cotton, rice, soya beans, and triticale and forage wheat).

12 The IPMM combines three dimensions to calculate poverty: income, basic needs and available or free time.

13 To this end, we calculated the average percentage that labour income represents in the total income of all households in the ENIGH, which resulted in 78 per cent. Thus, we compared labour income in the ENE with a 'reduced' poverty line representing this same percentage of the poverty line used in the ENIGH.

14 It also gives us a clue as to how large the underestimation of the labour force might be in other Third World countries, given that the measures used in most countries across the globe adopt 'last week' as a period of reference. Note that the correct procedure to estimate

participation in seasonal activities would be to ask about activities during the preceding year. Thus, the real underestimation is much greater and the AM still underestimates the agricultural labour force.

15 The survey uses the term 'farm subjects' to describe 'any individual who at any time during a period of six months, ending in the week the survey was taken, participated in obtaining products from the earth or livestock production, either directly as a worker or as an organiser or supervisor of the production process as a whole' (INEGI 2002: 182).

16 We do not ignore the fact that this period includes a spatial mobility dynamic of the working age population, on which we will reflect later.

17 Let us not forget that census data on labour matters are recorded using the previous week as the reference period. That is why the difference between 59.5 per cent and 49.4 per cent of the labour force dedicated to agriculture in 2003 and 2010 respectively is explained both by the secular decline trend of this type of worker and by the different periods of reference.

18 It should be noted that some studies based on the LFPR and that referred to the previous week claim that there is a low level of participation by women in rural contexts (see Pacheco and Sánchez 2012). However, it is likely that this is due, in part, to the seasonality of agricultural activity.

19 The threshold of fewer than 2,500 inhabitants turned out to be a very good selection. A table constructed but not included in this chapter shows that settlements with 2,500–14,999 inhabitants had a completely different pattern of labour force composition in 2003 compared with that of rural localities. In localities of 2,500–14,999 inhabitants, more than 60 per cent of

occupied persons belong to households with non-agricultural workers.

20 It should be noted that the INEGI recorded information only on those who participated in agricultural activity over the past six months, although they were asked about the characteristics of their participation in this activity throughout the year.

21 In the AM of the ENE, if the respondents gave a positive answer to the question of whether they had cultivated land and/or participated in agricultural or livestock activities over the past six months, they were

then asked in which type of activity (agricultural or non-agricultural) they had engaged in the past three months. In order to construct the trajectories, this information was also compared with the answers given by agricultural farmers and workers on their economic activity during the week prior to the interview. Pacheco and Florez (2009) identified twenty-two work itineraries in the AM. They are different from the ones we present here.

22 Landowners, *ejido* owners, occupants and rentiers are called 'peasants or farmers'.

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