

**POVERTY & VULNERABILITY ON
THE LABOR MARKET:
DIMENSIONS OF THE FRAGILITY
OF THE POOR**

Khaled Souidi

Working Paper 0122

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As of August 1998, financial support towards the ERF Working Papers Series from the Commission of the European Communities (through the FEMISE Program) is gratefully acknowledged. The views expressed in the Working Papers are those of the authors and do not necessarily reflect the views of the European Commission.

**POVERTY AND VULNERABILITY ON THE
LABOR MARKET: SOME DIMENSIONS OF
THE FRAGILITY OF THE POSITION OF THE
POOR**

Khalid Soudi *

Working Paper 0122

* Demographic-Statistician, Responsible for the service of studies and analyses of vulnerable groups; Observatory of the Living Conditions of the Population, Department of Statistics, 10001 Rabat, Morocco.

Abstract

This paper suggests, according to exploratory and analytical approaches, setting and analyzing the interaction between the type or nature of economic activity and monetary poverty. This can be done via a simplified presentation of labor market structure divided in various segments and employment constituents. The insertion of the young active generations stemming from poor areas, in the educational and training process, especially by lowering the opportunity cost of such insertion for the underprivileged domestic units may improve, in medium-long term, their professional abilities. This will increase the profitability of their economic activity and their insertion chances in more lucrative and stable employment segments.

1. General Introduction: Economic Context, Labor Market and Poverty

1.1 Economic Context and Labor Market

Situated in North-West Africa, Morocco is characterized by geographic diversity and a semi-arid climate. Moreover, it enjoys a strategic position owing to its proximity to Europe. As a gateway towards both Africa and the Mediterranean it enjoys a maritime coastline of more than 3000km. With a demography in full transition, the country is home to nearly 28 million inhabitants¹ spread out over an area of 710850 km.

During the last decade, the Moroccan economy has, unlike many economies in developing countries, realized considerable achievements at the level of overall growth. Gross domestic product (GDP) progressed, according to 1980 market prices, at a rate of 2.7 percent per year during 1990-99, whereas the average annual rate of demographic growth stood at 2.1 percent during the same period. Peaks of growth at two digits were registered in 1994 and 1996, 10.4 percent and 12.2 percent respectively. Nevertheless, these achievements essentially due to favorable weather conditions, should not conceal the structural weakness of the Moroccan economy, bearing in mind that economic growth is subjected to climatic hazards. Furthermore, after an increase of 6.9 percent in 1991, GDP, at constant prices, fell by 4.9 percent in 1992 due to severe drought. The same decline in GDP was recorded in 1995 and 1997 in the wake of two years of good economic performance in 1994 and 1996. These fluctuations in GDP are mainly the outcome of activities in the agricultural sector, the result of which is attributable to the mild climate. However, this jagged GNP graph points to the limited effects of reforms undertaken to introduce market mechanisms in all sectors of the economy and to restore independent economic growth of agricultural activity whose contribution to GDP remains below 18 percent.

Since 1992, Morocco entered a phase of consolidation of economic experience gained from the structural adjustment program. Participation in a liberalization process and structural reform, reallocation of resources

towards interchangeable goods activities, mobilization of savings, motivation of private investment, promotion of exports and stimulation of domestic demand, all these measures constituted the main economic options for 1992-1999. Such choices necessitate a re-adaptation of economic structures, but nonetheless they do have destabilizing effects on different segments of the labor market. Reference to data collected from a survey on employment, indicates the main unbalancing factors which mark the vulnerability of the labor market, particularly in the urban areas. These factors can be summarized as follows:

- One of the first results indicates that work opportunities have improved remarkably in urban areas. The gross rate of activity² has undergone and is undergoing a certain recovery. In 1998, it stood at 34.4 percent³ against 31.6 percent⁴ in 1990, that is an average annual rise of nearly 1.06 percent.
- The marked imbalance between the growing demand for employment and inadequate supply of job opportunities only exacerbates urban unemployment, whose most preoccupying aspect is its adverse impact on youth, particularly in the 15-24 age bracket. This was clearly reflected in the unemployment rate of 35.0 percent in 1998. Moreover, with 41.2 percent of the population unemployed, these youth are disproportionately subjected to the consequences of insufficient work opportunities.
- Bearing in mind the qualitative and quantitative inadequacy of the education-training system and productive system, new graduates from the education system who enter active life only aggravate the imbalance between demand and supply of job opportunities. Hence the national economy was confronted with the problem of large numbers of unemployed holders of diplomas.

¹ Demographic projection realized July 1, 1999 by the Demographic Study and Research Center.

² The gross rate of activity has a double significance, namely evaluation of the degree of participation of the population in the production of goods and services, on one hand, and burden borne by the active population

³ National Inquiry on Employment (ENE), 1998.

⁴ ENE 1990.

- As of 1983, the date when the structural adjustment program was implemented, the unemployed were qualitatively more effective than the actively employed. In 1984, the share of diploma holders rose to 33.8 percent among the unemployed, as opposed to 29.7 percent among the employed. This trend, throughout the years, generated a significant prevalence of diploma holders of higher education among the active unemployed than among the actively employed⁵.
- In the face of shrinking employment opportunities, the rise of urban unemployment inevitably led to the long term entrenchment of unemployment. The latter constitutes a critical social problem in that family resources are depleted within a few months. This has a greater impact on women (78.6 percent) more than men (72.5 percent), and does not spare any category of diploma holders. The relative magnitude of long term unemployment in 1998 was 74.4 percent.
- During the past two decades, the situation of the active urban population improved qualitatively in terms of educational aptitudes. From 1977 to 1997, the proportion of city dwellers with diplomas and of employment age jumped from 21.6 percent to 46.9 percent. This qualitative increase is related to the growing importance of those employed possessing average level diplomas than those employed who hold higher diplomas.
- Despite the significant growth in work opportunities for females in cities (16.1 percent in 1982 compared to 23.8 percent in 1997), the rate of active females, compared to men, stands below a desirable threshold, namely 22.3 percent for adult women and 75.1 percent for their male counterparts.
- In considering the annual distribution of employment according to professional status, one needs to point out that activities which continue to utilize traditional methods of organizing work in the urban economy are not included. The bulk of such workers are independents, home workers, family helpers and apprentices all of whom reflect this dominant trend.

⁵ For more information, refer to the Statistics Department, 2000. Education, training and work opportunities. Rabat: Statistics Department.

- In rural areas, nearly nine out of ten workers do not hold a diploma. This characteristic can be found among all socio-professional categories. It was noted that 83.3 percent of waged workers, 95.5 percent independents and 81.8 percent of employers have no academic qualification.

The above-mentioned context underlines the irreversible effect of the labor market on conditions and degree of economic and social vulnerability. Such a situation is more preoccupying because the imbalances are structural and will last at least through the short-medium term.

1.2 Poverty and Employment: What Interrelation?

The interaction between offer and demand for employment reveals that the imbalance in the labor market is explained in part by an excessive offer of manpower, and to a lesser extent by an unsatisfied demand as well as by unemployment. This is indeed the structural underemployment which afflicts nearly all categories in the active population. This under utilization of manpower primarily strikes the urban milieu and is more rampant among women than men, youth more than adults, and among diploma holders more than those without diplomas.

During the first quarter of 1999, the number of employed stood at 10888⁷, whereas 1403 were unemployed. The volume of the active population is bound to rise as a direct result of population growth, dissemination of education and training, particularly among women and by the process of urbanization. Such an imbalance in unemployment can only fuel the spread of poverty: A large number of households are incapable of mobilizing all their manpower to earn an income and combat the unjust levels of poverty.

Evidently, regressions perceived in the labor market abound and they carry consequences and constraints, which weigh heavily upon the population's standard of living. Consequently, such a situation tends to undermine the bases of human development. It is now admitted by all that any balanced and harmonious development of the population strictly depends on the degree of its emancipation via remunerated work. At least partially, the

⁶ Statistics Department, 2000.

⁷ ENE quarterly data, Department of Statistics, 2000

latter is regarded as the backbone of economic liberation and reintegration of individuals.

Beyond creating a simple framework for demand and supply of employment, the labor market is, *par excellence*, an undeniable instrument for poverty eradication. In fact, on the one hand, the said market is considered a conveyor of the impact of macro-economic policies on poverty⁸. On the other hand, inequalities in training, types of profession, socio-professional status and lucrative employment sector, all confine the category of workers with little or no training within inferior and unstable activities. Hence, they are condemned to poverty. That is to say, the structure of the labor market and the nature of its stratification constitute elements of great importance both in understanding and explaining the causes of poverty⁹. However, in the current context marked by the diminishing role of the State-Provider, the labor market is subject to imbalances and certain chronic dysfunctions that are not devoid of consequences with regard to the question of poverty. In this premise, it hardly suffices to study poverty on the basis of expenditure distribution in the case of Morocco, as a proxy-variable that allows one to deal with household incomes.

With the lack of unemployment benefits granted to the population seeking employment, and in view of the growing fragility of family solidarity exacerbated by the diminishing purchasing power of Moroccan families, proliferation of unemployment in urban areas and widespread underemployment in the rural milieu, *inter alia*, all these factors engender economic vulnerability and social deprivation.

However, labor economists have underlined on several occasions that the persistence of unemployment and underemployment, coupled with intense competitiveness among those demanding work and limited trade-union action has led to reduced salaries. Evidently, the labor market, instead of providing a source of affluence, has adversely affected the well being of a significant section of the active population and plunged it into a state of want and misfortune.

⁸ T. Addison, L. Demery, 1994.

⁹ J.K. El Aynaoui, 1995

Moreover, the labor market is connected to poverty in a relationship of cause and effect. It is within this context that our paper is written. Our working assumption is the following: the deficiency of living standards is intrinsically related to the forms of intervention in the labor market. Vulnerability to poverty is correlated to the type of activity and forms of employment. This assertion is founded, *inter alia*, on the close linkage between the implementation processes of the said market and of poverty.

Nevertheless, measuring poverty by its causes is complicated; its forms and dimensions are manifold. In Morocco, the most familiar way of addressing this phenomenon is the monetary approach elaborated in cooperation between the Department of Statistics and the World Bank.

1.3 Monetary Approach to Poverty: Methodological Basis

The monetary approach to defining poverty assesses the situation of an individual according to an indicator of well being and a critical threshold known as the poverty line. A person whose well being is below this line is considered poor. The focal point in this approach is the definition of the poverty line. In order to define this line it is necessary to determine one reference food basket applicable to all individuals.

The elaboration of this approach in 1998-99 was conducted on a methodological basis that enables the comparison of recent indices of poverty with those observed in 1984-85 and 1990-91. This methodology is summarized in the following two points:

- To establish the alimentary poverty line commensurate with spending that ensures the purchase of foodstuffs and related services which provide the minimum requirements of calories. This estimate was based on the updated index inferred from moderate indices of cost of living (ICV) corresponding to reference periods of investigation of living standards in 1990-91 and 1998-99. Bearing in mind the availability of urban and rural ICV, the alimentary poverty line of 1998-99 differed according to residential location. Moreover, the estimated alimentary poverty line rose to 1962 DH¹⁰ per person per year in urban areas and 1878DH in rural areas.

¹⁰ 1 DH = an average of 0.1084 US \$ in 1998

- To estimate the level of non- alimentary expenditures in comparison to the spending of those who are just on the alimentary poverty line. This estimate was made using models of demand on food. This is carried out by assessing the budgetary coefficient of alimentation when spending on food is equal to the alimentation poverty line and then deducting non- alimentary expenses. The total amount is added to the alimentary poverty line and the resulting aggregate is considered to be the poverty line.

Poverty lines obtained through this method were estimated in 1998-99 at 3922 DH per person per year in the urban milieu and at 3037 DH in the rural milieu. Furthermore, a household is considered poor when it realizes a moderate annual expenditure per person that is strictly below the fixed poverty line.

Meanwhile, a critical analysis of this approach indicates that it is basically limited. It implies that the satisfaction of needs only depends on the income or private spending of a household. However, the non- alimentary component in the poverty line constitutes a sort of “black box,” whose list of general positions we ignore. In fact, we are only aware of the total cost by empirical investigation.

1.4 Statistical Sources

The purpose of our paper is to study the interaction between the structure of the labor market and poverty. Hence it is indispensable to obtain relevant statistical information that meets our analytical requirements. The main constraints are related to the quality of available data. It goes without saying that they influence the indicators to be formulated and the relationships to be identified. In Morocco, the most up to date data sources that gather information for studying the relationship between poverty and the labor market are the two National Surveys on Household Living Standards (ENNVM) conducted in 1990-91 and 1998-99. These two sources proved to be most valuable for the purposes of our paper.

Undertaken according to a sample of 5184 households representing diverse social categories and regions in the country, the 1998 ENNVNVM focused on the entire national territory. Drawing the sample depended on a poll classified in two stages. The first, a sample of 432 primary units (UP) was selected from 1500UP constituting the master sample. In the second stage,

at the level of each master sample unit, 12 households were selected by a draw of equal probabilities. The method of drawing adopted differs from one residential area to another. In urban areas, it is a systematic drawing with equal probabilities. In rural areas, two cases are apparent: (i) case of a regrouped douar: the drawing method is that which applies to urban areas; (ii) case of dispersed douar: clusters of 12 households are composed as such in order to draw one per UP sample.

When these specifications are implemented according to an approach at times exploratory, at times analytical, the following sections propose to identify the main differentials of economic vulnerability related to different forms of activity. This is about understanding the fundamental factors linked, in particular, to the status of employment and modalities for professional insertion. These contribute to strengthening the capability of the under-privileged population to protect themselves against deprivation and immunize themselves against social precariousness.

2. Unemployment and Poverty Market: Fragility of the Position of the Poor

2.1 Work Offers and Poverty

Statistics on employment emanating from ENNVNVM 1998/99 reveal significant inequalities in the access to economic activity. Limited access to participate in the production of goods and services is manifest among the poor, both in urban and rural areas. Their gross rate of activity is relatively weak in comparison with the well to do population¹¹. It reached 33.3 percent for poor city dwellers and 39.3 percent for the rural poor, compared to 40.8 percent and 49.8 percent respectively in both rural and urban areas for the well to do. Nonetheless, this difference at the activity level between the two social categories remains largely attributable to the demographic structure of the poor. It is marked by a significant presence of those below the age of 15. They stand at 37.5 percent in cities as opposed to 47.4 percent in the countryside.

In fact, apart from such under-population, the activity rate of the population over 15 years of age reached 50.7 percent for the poor against only 52.8

¹¹ All persons belonging to 20 percent of households realizing the highest per capita income are considered well to do

percent for the well-off in the urban milieu, and 62.6 percent against 63.2 percent in the rural milieu. In other words, the charge rate¹² that burdens the actively employed poor is substantially heavier than that of the well-off. It should be underlined that in an urban area the actively employed poor carry the burden of nearly 3.3 other persons. The corresponding figure is only 1.9 for their well-off counterparts. In rural areas, this figure reached 1.7 for the former against 1.1 for the latter. This striking discrepancy in the charge rate, registered in both residential milieus, testifies to the magnitude of the impact of inactivity and unemployment on poverty.

ENNVM 1998-99 indicates that the participation of women in the production of goods and services, despite net improvement, continues to be limited. It is noteworthy that the feminization rate of the active population has risen, between 1982 and 1999, from 24.3 percent to 29.2 percent in urban areas, and 16.1 percent to 38.1 percent in rural areas. Such an evolution goes hand in hand with the revival of schooling and training for girls, changes in ambient mentalities and socio-cultural transformation. However, there are differences according to social strata. The feminization rate of the active population displays, in the urban milieu, a gap of more than ten points in percentage between the poor (27.0 percent) and the well-off (37.7 percent). This result corroborates the impact of inactivity on the urban poor. Such a finding is less pronounced in the countryside where the feminization rate of the active poor (38.3 percent) slightly exceeds that of the active well to do (37.6 percent). This relative inclination towards poor rural women is not unusual in an agricultural area where remunerated employment for a married woman or one of marrying age continues to be unacceptable. Moreover, a woman who works as a family helper is only accepted in households with an active independent mindset, or finally, when remunerated economic activity is still the “privilege” of poor women or those who are relatively comfortable and trained. Besides, the methodology followed to emancipate the rural active population is similar to that applied in cities, although the two areas involve two socio-economic contexts with nothing in common. Nevertheless, to distinguish between active and

inactive rural women is a complex matter to the extent that rural women can be both marginally active and housewives.

In order to gain a more profound understanding of the interaction between poverty and feminine inactivity, there is need, in what follows, to approach, according to residential area, the connection between living standards of inactive women via the calculation of partial correlated coefficients¹³.

In observing the effects of schooling and age, the relation between female inactivity and the categories of expenditure, even though weak, are similar regardless of the area under study. It indicates an inverse association to living standards according to which the more women are underprivileged (first quintile of expenditures), the more they are exposed to risk and inactivity. In fact, both inactivity and poverty weigh upon the individual's social and economic resources. Moreover, they are responsible for many social scourges (illiteracy, ignorance, malnutrition, disease, poor hygiene, overcrowding, isolation, etc.), which enclose part of the population in a vicious economic and social cycle.

On the other hand, disregarding a milieu will generate a negative association between a comfortable living standard and female inactivity. This fact explains why most well to do women participate in economic activities. This is not surprising because belonging to a privileged social category is more often synonymous with higher education, larger access to socio-economic services and an opening to modern developments. Concurrently, all these elements probably contribute to ensuring adequately remunerated employment and providing security against all forms of monetary precariousness.

2.2 Type of Activity and Poverty

The juxtaposition of the structure of the poor population's type of activity as opposed to the well-off confirms a frequent observation in neighboring developing countries. In fact, economic activity of individuals is not only influenced by the economic context of a country, but equally by demographic structure, mainly by age and sex. Moreover, the poor population is composed of 41.1 percent actively occupied, 6.2 percent

¹² The charge rate is an indicator that demographically expresses the number of persons without employment (inactive and unemployed) for an active occupied person; or it is the relationship between individuals without work, and employed individuals.

¹³ Partial correlation between two variable vectors **X** and **Y** is the simple correlation between **X** and **Y** after removing the linear effect of vector **Z** including the variables of control.

unemployed and 52.7 percent inactive. The latter are mostly pupils and students (38.1 percent), housewives (37.7 percent), and children of 7-10 years (11.5 percent). The structure among the well-off is nearly similar: the actively occupied stand at 39.2 percent, unemployed at 8.3 percent and inactive at 47.5 percent. However, the subdivision of the latter, equally reveals a prevalence of students (42.6 percent) and housewives (41.5 percent), whereas the remaining inactive population stand at 15.7 percent.

The urban-rural comparison indicates that there is more inactivity among poor city dwellers than their counterparts in rural areas (fig.1). Although this trend is equally manifest in the well-off category, it remains less pronounced in the rural milieu where the share of those active (51 percent) exceeds that of the inactive by 49 percent. Admittedly, all these findings indicate that inactivity is coupled with the risk of poverty. This is not surprising because the exercise of a professional activity, above all remunerative, is more often synonymous with material emancipation, a factor that is closely associated with an improvement in living standards. Having made this statement, the following is an assessment of the risk of poverty according to different modalities of activity¹⁴.

2.3 Having a Job is No Protection Against Poverty

The attributes of a type of activity strictly differentiates the population with respect to the risk of poverty. Among the inactive, those who possess “permanent” financial resources (private means or retired) are least likely to be exposed to poverty, according to research in a residential milieu. However, those who are inactive and dependent on others for their subsistence (pupil/ student, housewife or others) are the most vulnerable to poverty. Hence, it is important to conclude from this finding that inactivity without material support constitutes an additional factor in exacerbating poverty.

Exercising an activity will not dispel the risk of being subjected to poverty. In fact, the probability of poverty among the actively occupied continues to

¹⁴ This evaluation will be established on the basis of a binomial logistic model that estimates the probability of the realization of a dichotomous studied event according to whether certain events are or are not produced. For the presentation of the logistic model and evaluation of the probability in question, refer to annex 1.

be of significance and is close to 50 percent among active rural males. This indicates that holding a job is not sufficient to protect against poverty, above all within a particular economic context. This is due, on the one hand to the obvious presence of an informal sector, where low paid jobs are often the rule, and on the other hand to the importance of family business which engages certain family members without pecuniary compensation. Moreover, it is noteworthy that such a situation is not exceptional and indeed exists in neighboring developing countries.

In urban areas, unemployed males are more exposed to the risk of poverty than their female counterparts. This male overexposure is certainly a reality rather than a simple dangerous coincidence. In fact, contrary to what transpired at the national level, the average period of unemployment for the poor is more significant among men (38.5 months) than among women (32.3 months). Moreover, this gap is even wider with respect to long term unemployment (12 months and more). The average duration of this type of unemployment stands at 63.9 years for the former and 52.6 for the latter¹⁵.

In view of these results, three interesting facts and indicators from the field need to be underlined. Firstly, inactivity which is not financially supported is a strong cause of poverty. Secondly, an occupation will not protect an employee from the scourge of poverty. Finally, unemployed males are more liable to be afflicted by this phenomenon than unemployed females.

2.4 Mobilization of Household Human Resources Against Poverty

The poverty-type of activity relationship within a household indicates that poor households possess an average number of active persons that is higher than in well-off households. This number reached 2.5 against 1.7 in urban areas and 3.2 against 2.4 in rural areas. Moreover, these numbers respectively constitute 28 percent compared to 17 percent and 5.6 percent compared to 8.3 percent of the unemployed. The significant prevalence of the latter among urban households can be considered one of the causes of socio-economic vulnerability, particularly in a context marked by chronic unemployment. In rural areas, the limited and inadequate character of the average number of unemployed per household classifies unemployment in the second place, as a determinant of rural poverty.

¹⁵ This point will be dealt with more detail later.

In terms of the composition of households, the disparity is growing wider when the average number of inactive persons is examined. This number is multiplied when passing from well-off to poor households. It has reached, respectively, 2.4 against 4.9 in the urban milieu and 2.3 against 4.8 in the rural. This characteristic is positively correlated to the average size of households. Residential milieu apart, the poor tend to live in households composed of more than seven persons, whereas the well to do live in smaller households of four or less. Such a finding sheds light on an important aspect, namely that the size of a household depends on its economic situation. Poverty is equivalent to a low economic standard and drives up the demographic regime of Moroccan families, a regime that can change direction, as soon as economic conditions improve.

Finally, despite the significance of the average number of active persons in poor households, a considerable proportion of this type of household remains without activity. Inactivity here stands at 5 percent in urban areas and 2.9 percent in rural. This is where the poorest households can be found. Nearly half of them (48 percent) in urban areas are female-headed, of which 43.4 percent are widows or divorced. In rural areas, the majority of poor households without active members (71.1 percent) are female-headed households, of which 39.8 percent are without husbands. No doubt, this type of household is in dire economic circumstances and in need of social assistance; it should therefore receive priority in terms of urgent intervention measures. It should be provided with basic requirements (food aid, health, hygiene, education, etc.) in order to alleviate poverty.

3 Under Utilization of Manpower and Poverty

3.1 Unemployment and Poverty: What Interaction?

The study of the relationship between unemployment and poverty is justified by the fact that poverty is a direct consequence of the disintegration of the socio-economic system. In fact, one of its characteristics is the deteriorating and persistent unemployment afflicting the Moroccan context, youth and diploma holders. Moreover, in the absence of subsidies which protect the unemployed, this segment of the active population risks falling, as we have mentioned above, into a state of want and misfortune.

Gender issues apart, the scope of unemployment among the poor is more accentuated in urban (31.2 percent) than in rural (6.9 percent) areas. It usually affects poor female city dwellers (37.0 percent) more than their male counterparts (29.0 percent). This reality in the urban milieu is but an indication that both unemployment and poverty coexist closely. Within such a premise, a more appropriate manner for acting against urban poverty is to fight against urban unemployment and to afford equal access to work for both sexes.

Contrary to expectation, such interaction is not evident in rural areas. The rate of unemployment in terms of gender and in the aggregate indicates a slight difference according to spending categories (fig.2). Two fundamental reasons seem to explain such a situation. First, the active rural population increases more rapidly than the rate of absorption of manpower in agriculture, the potential of which is restricted by physical limitations on the extension of cultivable land. Furthermore, rural exodus continues at a steady pace depriving the rural community of an important factor, namely job seekers. Second, there is need to point out interactions in diverse dimensions, in the form of family activities, partially or occasionally associated to land and small trade, in which certain members of the family are working as family helpers without pecuniary compensation.

The independence test between¹⁶ the status of employment (unemployed or not) and spending categories, has equally confirmed this perceived relationship according to residence milieu. In fact, in urban areas, everything else being equal, the distribution of unemployment among women as well as men is not separate from the classification of spending groups. However, in the rural milieu, the risk of being unemployed is only moderately affected by the level of expenditure¹⁷.

This situation is addressed in depth later in the paper with an analysis of the parameters of binomial logistic which estimates the net effect of individual

¹⁶ The test of independence calculates the value of the distribution for the statistic χ^2 and the appropriate degrees of freedom.

¹⁷ In urban areas, for men as well as for women, α is nil. On the other hand, in rural areas, it is 0,13 for the first ones and 0,36 for the second.

determinants on the risk of poverty and underlines in particular the impact of unemployment on this scourge.

Bearing in mind the significance of available parameters, econometric analysis confirms that after having monitored the other variables introduced in the model, the relationship between “being in a state of unemployment” and the risk of being poor, is only of significance in the urban milieu. The relative risk of poverty for an unemployed city dweller stands at 73 percent more than for an active occupied person. This risk only reaches 17 percent for an inactive person. The difference in terms of relative risk of poverty highlights an important fact, namely that the economic dimension of poverty is certainly manifest. This implies that the fight against urban poverty inevitably passes through the creation of remunerative employment.

Nevertheless, in the general context of a Moroccan economy marked by liberalization, the intrinsic potential for creating jobs in the near future must be addressed. This understanding is even more disturbing so long as the social facet is addressed as exogenous to the economic development strategy. In any case, it is undoubted that on the one hand, new possibilities of employment should be sought via the promotion of private and public investment in productive services while on the other, flexibility of the labor market should be ameliorated. In this regard, one must bear in mind the efforts exerted by the State through the extension of the National Promotion programs, particularly to the active population who lack any qualifications.

The size of the city also has a definite impact on poverty. Living in a small city raises the relative risk of poverty to a rate of 18 percent as compared to large cities.

Moreover, a survey on residential milieu indicates the obvious net effect of education on poverty. *Ceteris paribus*, the more a person is educated, the less the exposure to poverty. Moreover, city dwellers with higher education are eight times less exposed to poverty as compared to their uneducated counterparts.

Furthermore, having maintained that unemployment is neither the only nor the principal form of under utilization of manpower, it cannot alone explain the different aspects of the relationship between under utilization of manpower and poverty. Therefore, this relationship needs to be clarified by

means of a thorough examination of the connection between underemployment and poverty.

3.2 Under-Employment¹⁸ and Poverty: What Interaction?

The Moroccan labor market is characterized by significant seasonal and other work effort provided during certain periods of the year (agricultural work, fishing, small trade etc.), by unequal access between men and women to active professions and by chronic unemployment not to mention work, which lies on the fine line between occupation and unemployment.

However, although the unemployment rate is only capable of giving partial information on the interaction between under-employment of manpower and poverty; the analysis of under-employment contributes to a better understanding of the nature of such interaction.

The effect of under-employment on poor active populations is more pronounced in urban (33.6 percent) than in rural (20.0 percent) areas. In comparison with the well-off groups, who constitute 23.9 percent and 21.5 percent of the unemployed in both areas respectively, it is apparent that under-employment is more rampant among poor city dwellers than among their well to do counterparts, and equally, as well as acutely afflicts these two groups in the countryside. As to gender, poor female city dwellers suffer more from under-employment than their male counterparts, namely 41.6 percent against 29.8 percent. However, in rural areas, poor women are less under-employed than poor men (15.1 percent against 23.3 percent). It is noteworthy that under-employment rates were equally high in the non-poor group, especially women in the urban milieu.

Such interaction between poverty and under-employment was confirmed by the independence test. It indicates that under-employment is not independent from the classification of spending groups except for active rural men. On the other hand, the same applies for men as for women in urban areas, as well as women in the rural milieu. However, the probability

¹⁸ At present, ENNVN 1990/91 is the only source furnishing useful information for addressing the relation which interests us. According to this survey, an underemployed person is a person with a job who has worked less than the required period set on a minimum number of hours per week: 32 hours in urban areas and 40 in rural areas, for reasons outside his will. The unemployed were automatically integrated within the under-employed population.

of being under-employed is to a large degree a function of the levels of expenditures¹⁹.

The analysis based on the logistic regression model indicates that, after having monitored the residence milieu, size of city, gender perspective and education level, the relative vulnerability of an active under-employed person to poverty is significantly higher compared to a person who is not under-employed.

The analysis of under-employment among the active occupied population reveals findings that contradict the former. The rural poor are more affected by this trend of under utilization of manpower compared to poor city dwellers (12.3 percent against 6.5 percent). Under-employment rate of the well-off notably exceeds that of the poor, namely, 20.4 percent against 12.3 percent in the countryside and 9.3 percent against 6.5 percent in cities. Nonetheless, the prevalence of female under-employment rates is certain and applies to the poor as well as to the well-off in the urban milieu.

These results tend to clarify the nature of the relationship between the under-utilization of manpower and poverty. If it is indisputable that unemployment is a salient feature of the active poor residing in the urban milieu, those who work are paradoxically the most employed in terms of aggregate hours as compared to social categories with high living standards. In other words, poverty in urban areas is not dealt with simply as poverty in and of itself, but rather it is viewed in terms of activities exercised and the intensity of these exercises. It is tackled in different terms such as development and marketing of such exercises.

On the other hand, in rural areas, under-employment is suspected to be more of a determining factor than unemployment as a cause for poverty. This is more applicable to women since their under-employment rate is higher than their unemployment rate. This is due to the seasonal nature of agricultural activities which essentially require concentration of effort during certain periods. However, one must recall the fact that the modern

agricultural sector has generated less stable and fewer permanent jobs. Hence, the majority of the active population languish in traditional agriculture with inadequate productivity. Moreover, the agrarian structure, in the context of Moroccan land ownership has a decisive influence on the volume of rural employment. It is very interesting to underline that nearly 19.2 percent²⁰ of poor households lack irrigated holdings, and 32.3 percent¹⁹ have non-irrigation holdings of less than one hectare, against 20.6 percent²¹ and 25.5 percent²² respectively in 1991. These findings, although limited, imply that apart from work at home, work for the great majority of poor rural households is the main source of livelihood. It is a resource that needs to be enhanced by access to means of production (land, water and credit) and to the labor market through developing extra- agricultural activities, bolstering public investments in agriculture especially to rain fed zones where a large part of the rural poor live. One example of such public intervention is the National Promotion program. International experience indicates that public works programs that employ non-qualified manpower at below minimum wages in projects for the establishment and maintenance of infrastructure are effective as a temporary measure to mitigate the situation of poverty²³.

4. Structures of the Labor Market and Profile of Poverty

4.1 Poverty and Branches of Economic Activity

Tables 9 and 10 demonstrate the three indices for measuring the interaction of poverty with three forms of the labor market structure. These indices prompt the following comments:

There is a fine correlation between certain branches of activity and the incidence of poverty. Active city dwellers that work in public sector establishments and facilities (BPT), in agriculture, fishing, industry and trade are particularly more at risk of poverty. In fact, 20.5 percent, 14.5 percent, 12.3 percent and 12.1 percent of these workers, respectively, are poor. The in- depth indicator of poverty (P1) points out that the scope of

¹⁹ In the urban areas, the main estimated risk is nearly nil for men and women. In rural areas, it stands at 11 percent for the former and 4 percent for the latter. Therefore, with a theoretic risk of 5 percent, independence is acceptable between under-employment and spending groups only for the active rural male population.

²⁰ Provisional data by ENNV1998/99

²¹ ENNV1990/91 database

²² "bour" (an Arabic word) is a non irrigated agricultural zone

²³ The World Bank, 1993

poverty is substantially higher among active persons who work in these branches than in domestic services. Equally, the index of the severity of poverty, that which reacts to the distribution of well being among the poor, indicates that it is within these branches of activities, domestic services included, where under-privileged workers predominate and where acute poverty is rampant. It is particularly more accentuated in the economic branch of BTP (1.4 percent) and agriculture (1.2 percent). Moreover, the study of the relative contribution of various branches of activities to total poverty confirms these results. In fact, the activity branches of BTP, of agriculture, industry, and domestic services contribute more than half to total poverty, and this according to all three indices used to measure poverty.

On the other hand, in rural areas, despite the scant diversity of economic activities and their weak attraction, poverty continues to be an important issue in all branches of activities. Moreover, the extent of poverty is more preoccupying among workers in BTP, agriculture and industry. It is in these branches as well as in general administration that the rural active poorest of the poor are confined. In fact, BTP, agriculture, industry and to a lesser extent, general administration contribute more than 90 percent of total poverty among the active rural population according to the index in consideration.

4.2 Poverty and Socio-Professional Groups

According to the analysis of socio-professional groups, poverty is more pronounced among active city dwellers confined in the groups of “workers, agricultural laborers and fishers” (20.3 percent), “non agricultural laborers, packers and workers in small crafts” (17.2 percent), and “qualified craftsmen and workers”(13.8 percent). The volumetric index indicates that the depth and extent of poverty is higher in these groups. They are respectively as follows: 5.0 percent, 4.0 percent, and 2.7 percent. Moreover, these three professional groups contribute nearly 70 percent of total poverty. This is a sign that qualified manpower could be a measure to ward off this threat. In fact, it is useful to recall that before the rise of competitiveness, professional qualification represented the irreversible means of support for occupying a remunerative job and was a positive defense against poverty. Moreover, the poor have little access to education because of the necessity, among other reasons, to rejoin the ranks of the active population. Therefore,

promotion of education and establishment of mechanisms to ensure its success will play a crucial role in the development of remunerative work opportunities for the poor.

In rural areas, poverty is more accentuated among professional groups “non-agricultural activities, packers and workers in small jobs” (31.0 percent), “workers and agricultural laborers” (27.0 percent), “agricultural exploiters, fishers, foresters, and others” (23.0 percent) and “qualified craftsmen and workers” (19.0 percent). Meanwhile, the extent of poverty is more apparent in the first two groups, namely, the overall deficit of the poor according to the poverty line is 7.9 percent and 6.0 percent respectively. The poverty severity index underlines that inequality of poverty among groups of “workers, agricultural laborers and fishers” and “agricultural exploiters, fishers, foresters and others” is more frequent. These two groups contribute nearly 87.5 percent to inequality among the rural poor. These conclusions indicate, *inter alia*, that in the long term only a qualitative improvement in manpower will ameliorate the living conditions of rural workers. However, in the absence of capital intensive economy in rural areas, the active trained rural population, a positive potential against poverty, are liable to find themselves in cities or confined to traditional activities that generate poor profits.

4.3 Poverty and Professional Status

The relational aspect between poverty and situation in principal professions in the labor market is an equally salient feature of the active population. In the urban milieu, the incidence of poverty is strongly correlated to employment status. The active population who has the status of apprentice, independent or salaried worker are the most vulnerable to poverty. In fact, 23.0 percent, 12.9 percent and 10.7 percent, respectively, of these workers are poor. Furthermore, the indicator on the depth of poverty shows that the extent of poverty is higher among this active category. The severity index as well, underlines that inequality among workers as well as family helpers is very pronounced. Finally, the study on relative contribution to poverty corroborates these findings and reveals the important part played by wages. Their contribution to total poverty exceeds half, and this according to the considered indicator. The latter indicates the relevance of salary policies in the fight against poverty. This implies that salary policy, particularly that which concerns minimum wages (SMIG), must be oriented towards

alleviation of poverty, taking into account socio-demographic characteristics of the structure of Moroccan households. In fact, even with the application of minimum wages, a household of more than six persons including a worker with SMIG for a whole year's work, can be classified as poor due to reduction of the available average income of household.

In rural areas, the relationship between poverty and professional status is very significant. Apart from employers, other worker categories are severely affected by poverty. According to indicators, it stands at 26.0 percent for wage earners (salaries), 25 percent for family helpers and 20.0 percent for independents. These are the three situations that mostly generate poverty in the countryside. The in-depth indicator of poverty equally reveals that the extent is substantially higher among the salaried (6.5 percent), family helpers (5.7 percent) and independents (4.7 percent). Moreover, the severity indicator reveals that these workers are the poorest of the poor. The relative contribution to poverty by various positions of employment consolidate these findings. In fact, salaried workers contribute more than 25 percent, independents by 20 percent and family helpers nearly 50 percent of total poverty, and this according to the indicator under consideration.

These explicit findings emphasize the need for undertaking a number of ad hoc interventions to alleviate rural poverty, at least relatively. Moreover, given the relative weight of wages among rural workers, it is necessary to underline the importance of assessing work via, *inter alia*, augmenting the minimum wages (SMAG) and ensuring compliance with it.

Such augmentation will probably encourage small farmers to seek remunerated work in enterprises, whether agricultural or industrial, and modern businesses where the level of productivity is high. Meanwhile, this raise should not be so great as to engender underemployment. On the other hand, diversification of the productive fabric in rural areas would probably absorb a good number of workers who are "family helpers", in particular active women who are the core of those engaged in this type of work. Anyway, it is useful to recall that such an option is largely conditioned by investment promotion in the rural domain, particularly in zones where the great number of the poor are concentrated, namely the rain fed zones.

5. Conclusions and Recommendations

The analysis of ENNVN 1998/99 data sheds light on the nature of the relationship between poverty and activity. Far from being a matter of fate, monetary poverty is linked to the extent of vulnerability on the labor market. Participation of the poor in economic activity continues to be weak and the fruits of this participation are shared more by other persons. Inactivity remains the salient feature of the poor, especially among the female population. Poor city dwellers are subjected to unemployment, whereas their rural counterparts are more exposed to under-employment. What is worse, the survey of poor households in their residential milieu indicates that a large number of them were inactive.

Moreover, the poverty profile reveals that the impact of poverty, regardless of the considered indicators, is equally correlated to the localization of the active population according to the structure of the labor market and the modalities of professional insertion. Workers who have jobs in the sectors of construction and public utilities, agriculture, industry and trade are substantially more exposed to the incidence and severity of poverty. Moreover, workers who are engaged in professions with modest qualifications, such as "workers and agricultural laborers and fishermen", "non agricultural laborers, workers in small crafts", "artisans and qualified workers" and rural agricultural exploiters are all essentially poor. Hence, the decisive impact of professional status on living standards is quite obvious. In the urban milieu, apprentices, independents and wage earners are particularly exposed to the risk of poverty. In rural areas, the connection between professional status and poverty indicates that those who generate poverty are mostly the "wage earners", "family helpers" and "independents". The insertion of the young generation stemming from poor areas in the educational and training process, especially by lowering the opportunity cost of such insertion for the underprivileged domestic units, may improve, in the long term, their professional abilities. This will increase the profitability of their economic activity and their insertion chances in more lucrative and stable employment segments.

Also, the characteristics and structure of the labor market are not without consequences on poverty. They exercise an irreversible influence on well being. As long as the labor market is not capable of absorbing the rising offer of manpower, assessing and marketing the workers' efforts and

developing the professional abilities and qualifications of the active population, vulnerability to poverty will remain acute.

Meanwhile, it must be stressed that the alleviation of poverty does not exclusively depend on this option. It depends on others, *inter alia*, the sectoral distribution of the benefits of economic growth, the nature of change that may occur with respect to inequalities in the urban and rural sectors as well as the proliferation of self protection factors against poverty. Hence, integration of underprivileged groups in investment in human development, and the creation of prerequisites for upgrading human resources are two essential pillars for improving the well being of these categories.

Such an option calls for a study of lucrative employment opportunities that will upgrade the capabilities of young generations stemming from underprivileged environment, bearing in mind the evolution of the structure of the labor market in the medium-long term.

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Figure 1: Classification of the Population According to Type of Activity, Residence Milieu and Living Standards

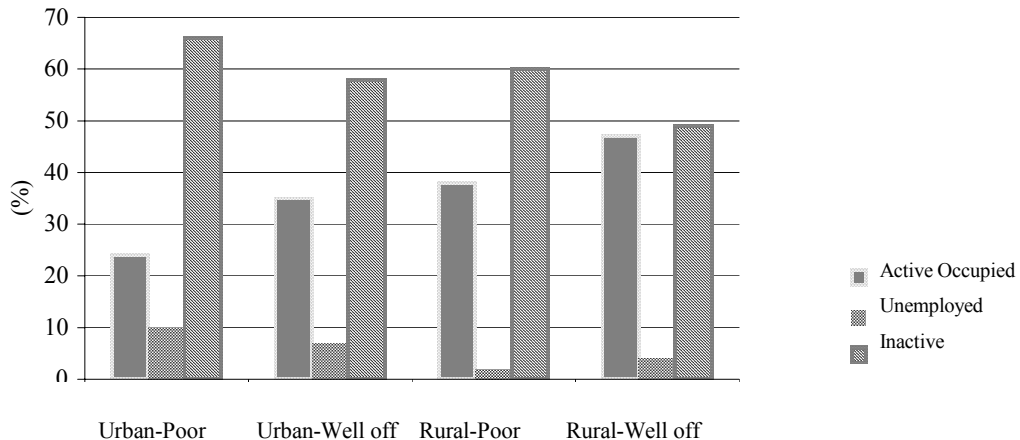


Fig 2: Rate of Adults Unemployment According to Spending Groups

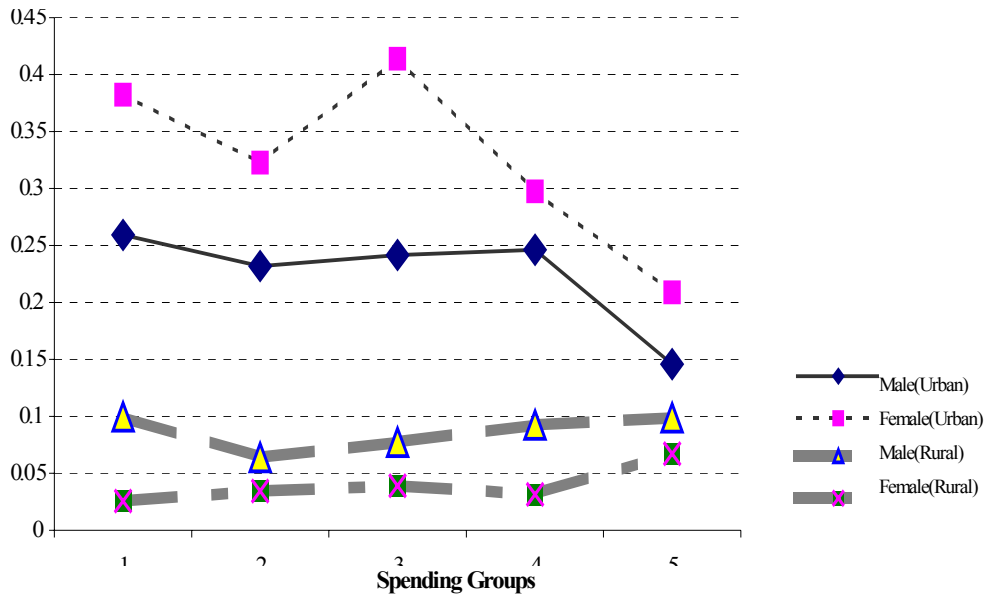


Table 1: Comparative Tendencies of the Relative Variation of the PIB and of Urban Economic Activity

| Period | PIB Variation (in %) (at Const. 1980 price) | Urban Activity (in %) (I 5 years or more) | Urban Unemployment Rate (in %) |
|-----------|--|--|-----------------------------------|
| 1992/1991 | -4.9 | 47.7 | 16.0 |
| 1993 | -0.1 | 47.9 | 15.9 |
| 1994 | 10.4 | 48.1 * | 16.2* |
| 1995 | -6.6 | 52.0 | 22.9 |
| 1996 | 12.2 | 49.9 | 18.1 |
| 1997 | -2.3 | 49.3 | 16.9 |
| 1998 | 6.5 | 48.1 | 19.1 |
| 1999 | -0.7 | 48.1 | 22.0 |

Notes: The figures with an asterisk are estimates provided by our calculations based on linear interpolation.

Source: Statistics directories and the different permanent national surveys on employment of the Department of Statistics.

Table 2: Partial Correlation Coefficients+ between Inactivity and The Distribution of The Feminine Population Above 7 Years of Age Depending on The Brackets of Expenses. Variables of Control: Level of Education and Age.

| Brackets of Expenses | Residential Environment | |
|----------------------|-------------------------|---------|
| | Urban | Rural |
| 1 | 0.08*** | 0.05*** |
| 2 | NS | NS |
| 3 | 0.10 | 0.02* |
| 4 | -0.09** | 0.09*** |
| 5 | 0.11*** | 0.07** |

Notes: ***: significant at 1%; *: significant at 10%; **: significant at 5% NS: non significant at 10%; Bracket 1 comprises the least favored 20% of the feminine population, bracket 2 comprises the following 20%, up to bracket 5 that is made up of the most favored 20%. + The presence of a correlation between two variables does not necessarily entail causality. Several figures can in fact be the case: 1) the first variable might act upon the second 2) the second might act upon the first, 3) the two variables might interact, 4) other factors might act simultaneously upon the two variables in question, et 5) the relation might be purely fortuitous. Similarly, the absence of a correlation can denote the presence of factors that exercise an opposite action.

Source: Data bases of the l'ENNVN 98/99

Table 3: Assessment of The Probability of Poverty on the Basis of Gender, Type of Employment and Residential Area

| Type of Activity | Residential Area | | | |
|--------------------|------------------|------|--------|------|
| | Urban | | Rural | |
| | Female | Male | Female | Male |
| Active workers | 0.25 | 0.37 | 0.32 | 0.51 |
| Unemployed | 0.51 | 0.62 | 0.51 | ** |
| Housewives | 0.48 | - | 0.57 | - |
| Pupils/ Students | 0.42 | 0.67 | ** | 0.68 |
| Annuaunts/ Retired | 0.10 | 0.20 | 0.06 | 0.18 |

Note: These probabilities are calculated via the evaluation of the logistic model parameters in table 11 (see Annex 1). Only the significant coefficients less than 10% are retained in these calculations. Consequently certain values replaced by (**) were not calculated.

Source: ENNVN Data base 1998-99

Table 4: Basic Tendencies of the Indicators of the Mobilization of the Human Resources of the Households Depending on their Standard of Living

| Socio-economic Category | Poor | | Not poor | | Wealthy | |
|---|-------|-------|----------|-------|---------|-------|
| | Urban | Rural | Urban | Rural | Urban | Rural |
| Average number of workers/household | 2.5 | 3.1 | 1.9 | 2.8 | 1.7 | 4.0 |
| Average number of unemployed/household | 0.7 | 0.2 | 0.5 | 0.2 | 0.3 | 0.2 |
| Average number of inactive members/household | 4.9 | 4.8 | 3.4 | 3.1 | 2.4 | 2.3 |
| Percentage of households lacking active members | 5.0 | 2.9 | 8.3 | 4.7 | 10.6 | 7.9 |
| Average size of households | 7.4 | 7.9 | 5.4 | 5.9 | 4.1 | 4.7 |

Source: Database of the ENNVN 1998-99.

Table 5: Unemployment Rate According to Gender: Standard of Living and Area of Residence

| Environment/Gender | Poor | Not poor | Wealthy |
|--------------------|------|----------|---------|
| Urban | | | |
| Men | 29.0 | 21.0 | 15.0 |
| Women | 37.0 | 30.0 | 20.0 |
| Both | 31.2 | 24.2 | 16.9 |
| Rural | | | |
| Men | 9.0 | 8.0 | 10.0 |
| Women | 2.0 | 5.0 | 7.0 |
| Both | 6.9 | 7.0 | 7.7 |

Source: Database of the l'ENNVM 1998-99.

Table 6: Relative Poverty Risk Measured by the Binomial Logistic Function Target Population: Fifteen and over Fifteen Year Olds

| Independent Variables | Net Relative Risks Related to Reference Modalities | |
|---------------------------|--|----------|
| | Urban | Rural |
| Type of activity | | |
| Unemployed | 1.73*** | 1.19(NS) |
| Inactive | 1.17** | 1.35*** |
| Active employed (RM) | 1.00 | 1.00 |
| Level of Education | | |
| Basic | 0.67*** | 0.64*** |
| Secondary | 0.20*** | 0.22*** |
| Higher | 0.12*** | 0.29*** |
| No education (RM) | 1.00 | 1.00 |
| Sex | | |
| Female | 0.87** | 0.80*** |
| Male (RM) | 1.00 | 1.00 |
| Kind of City | | |
| Town | 1.18*** | - |
| City (RM) | 1.00 | - |
| Number of observations | 11653 | 8369 |

Source: Database of the ENNVN 1990-91. Notation: RM = Reference Modality. Level of significance: *(10%). **(5%). ***(1%) and NS (not significant at 10%).

Table 7: Under-Employment Rate (in %) According to Gender. Standard of Living and Living Area

| Milieu/Gender | Standard of Living | | |
|--|--------------------|----------|---------|
| | Poor | Not poor | Wealthy |
| Active urban Population (age 15 and beyond) | | | |
| Men | 29.8 | 22.3 | 20.2 |
| Women | 41.6 | 44.4 | 33.8 |
| Sexes réunis | 33.6 | 27.9 | 23.9 |
| Active rural population (age 15 and beyond) | | | |
| Men | 23.3 | 18.9 | 17.9 |
| Women | 15.1 | 20.3 | 28.0 |
| Both genders | 20.0 | 19.4 | 21.5 |
| Active urban working population (age 15 and beyond) | | | |
| Men | 5.1 | 7.4 | 7.4 |
| Women | 10.1 | 18.8 | 13.9 |
| Both genders | 6.5 | 9.9 | 9.3 |
| Active rural working population (age 15 and beyond) | | | |
| Men | 12.9 | 13.5 | 14.0 |
| Women | 11.3 | 17. | 20.4 |
| Both genders | 12.53 | 15.1 | 13.3 |

Source: Database of the ENNVN 1990-91.

Table 8: Relative Poverty Risk Measured on a Logistical Basis Target Population: Active Population aged 15 and Beyond

| Independent variables | Urban | Rural |
|----------------------------------|----------|----------|
| Status of underemployment | | |
| Under-employed | 2.17*** | 1.19* |
| Non (RM) | 1.00 | 1.00 |
| Level of Education | | |
| Basic | 0.17* | 0.56*** |
| Secondary | 0.23*** | 0.39*** |
| Higher | 0.10*** | 0.02(NS) |
| Uneducated(RM) | 1.00 | 1.00 |
| Gender | | |
| Feminine | 0.83(NS) | 0.92(NS) |
| Masculine (RM) | 1.00 | 1.00 |
| Type of city | | |
| Town | 1.60*** | - |
| City (RM) | 1.00 | - |
| Number of observations | 2594 | 4055 |

Source: Database of the ENNVN 1990-91. RM: Reference Modality. Significant Level: *(10%). **(5%). ***(1%) and NS (not significant at 10%).

Table 9: Interaction Between Poverty and the Structures of the labor market in the Urban Areas: Impact. Depth. Seriousness and Relative Contribution to Total Poverty (in %)

| | P ₀ | | P ₁ | | P ₂ | |
|---|----------------|-----------------|----------------|-----------------|----------------|-----------------|
| Structures of the labor market | Value | Co ₀ | Value | Co ₁ | Value | Co ₂ |
| Branches of economic activities | | | | | | |
| Agriculture. forestry and fisheries | 14.5 | 7.1 | 3.4 | 8.1 | 1.2 | 9.2 |
| Industry | 12.3 | 26.5 | 2.4 | 25.7 | 0.7 | 24.1 |
| Building and public works | 20.5 | 14.3 | 4.2 | 14.6 | 1.4 | 15.7 |
| Trade | 12.1 | 21.6 | 2.1 | 18.7 | 0.6 | 17.2 |
| Hotels and restaurants | 7.9 | 1.7 | 1.2 | 1.3 | 0.2 | 0.7 |
| Transport and communication | 9.8 | 3.7 | 1.7 | 3.2 | 0.4 | 2.4 |
| Financial services and real-estate | 3.2 | 0.5 | 0.3 | 0.2 | 0.06 | 0.1 |
| General administration | 3.0 | 2.3 | 0.7 | 2.7 | 0.2 | 2.5 |
| Social services supplied to the community | 7.7 | 7.3 | 2.1 | 9.8 | 0.7 | 10.6 |
| Household services | 10.7 | 3.4 | 2.7 | 4.4 | 1.0 | 5.2 |
| Unemployed people who never worked | 12.6 | 11.4 | 2.0 | 11.3 | 0.7 | 12.7 |
| Total | 11.2 | 100.0 | 2.3 | 100.0 | 0.71 | 100.0 |
| Socio-professional Groups | | | | | | |
| Legislators and hierarchical officials | 1.7 | 0.2 | 0.2 | 0.1 | 0.02 | 0.04 |
| Managers and members of the liberal professions | 0.8 | 0.15 | 0.05 | 0.05 | 0.0 | 0.0 |
| Medium cadres | 0.6 | 0.3 | 0.2 | 0.6 | 0.008 | 0.07 |
| Employees | 2.9 | 2.7 | 0.5 | 2.5 | 0.2 | 3.14 |
| Tradesmen. middlemen and financiers | 11.2 | 11.5 | 1.8 | 9.4 | 0.5 | 8.14 |
| Farmers. fishers. foresters and others | 7.2 | 1.8 | 0.8 | 1.1 | 0.14 | 0.56 |
| Craftsmen and qualified workers | 13.8 | 35.5 | 2.7 | 35.2 | 0.8 | 32.6 |
| Workers and farming and fishing labor | 20.3 | 5.3 | 5.0 | 6.6 | 1.7 | 7.04 |
| Foremen for equipment. engines and the like | 6.0 | 2.6 | 1.0 | 2.2 | 0.3 | 2.1 |
| Non-agricultural labor. maintenance staff and workers in small crafts | 17.2 | 28.8 | 4.0 | 33.0 | 1.4 | 36.0 |
| Persons who cannot be classified according to a profession | 12.2 | 11.4 | 2.7 | 9.25 | 0.7 | 10.31 |
| Total | 11.2 | 100.0 | 2.3 | 100.0 | 0.71 | 100.0 |
| Situation within the Profession | | | | | | |
| Waged workers | 10.7 | 57.4 | 2.2 | 59.4 | 0.7 | 55.1 |
| Independent | 12.9 | 19.2 | 2.5 | 18.3 | 0.7 | 17.8 |
| Employers | 1.6 | 0.3 | 0.4 | 0.4 | 0.1 | 0.1 |
| Household workers | 7.7 | 0.3 | 1.9 | 0.4 | 0.6 | 0.3 |
| Family assistant | 9.4 | 4.2 | 1.5 | 3.4 | 0.3 | 1.4 |
| Apprentices | 23.0 | 5.8 | 5.1 | 6.3 | 1.6 | 12.0 |
| Others | 18.0 | 1.4 | 3.1 | 0.5 | 0.8 | 0.6 |
| Unemployed person who has never worked | 12.6 | 11.4 | 2.0 | 11.3 | 0.7 | 12.7 |
| Total | 11.2 | 100.0 | 2.3 | 100.0 | 0.71 | 100.0 |

Source: Database of the ENNVN 1998-99.

Table 10: Interaction Between Poverty and The Structures of the labor market in the Rural Areas: Impact, Depth, Seriousness and Relative Contribution to Total Poverty (in %)

| Forms of labor market | P ₀ | | P ₁ | | P ₂ | |
|---|----------------|-----------------|----------------|-----------------|----------------|-----------------|
| | Value | Ci ₀ | Value | Ci ₁ | Value | Ci ₂ |
| Branches of economic activities | | | | | | |
| Agriculture, forestry and fisheries | 25.3 | 80.0 | 5.8 | 79.8 | 2.0 | 78.8 |
| Industry | 21.5 | 5.5 | 4.2 | 4.6 | 1.5 | 4.7 |
| Building and public works | 29.4 | 5.8 | 7.6 | 6.9 | 2.9 | 7.6 |
| Trade | 13.5 | 3.0 | 3.6 | 3.3 | 1.3 | 3.3 |
| Hotels and restaurants | 13.8 | 0.2 | 3.5 | 0.2 | 1.2 | 0.2 |
| Transport and communication | 18.7 | 1.1 | 10.8 | 0.0 | 1.1 | 1.1 |
| Financial services and real-estate | 43.0 | 0.1 | 10.8 | 0.0 | 1.1 | 0.0 |
| General administration | 8.1 | 0.4 | 1.7 | 0.3 | 2.7 | 1.3 |
| Social services supplied to the community | 16.2 | 1.3 | 3.7 | 1.3 | 0.6 | 0.6 |
| Household services | 25.8 | 0.6 | 2.9 | 0.3 | 1.4 | 0.4 |
| Unemployed people who never worked | 20.0 | 2.0 | 5.4 | 2.0 | 1.8 | 2.0 |
| Total | 24.0 | 100.0 | 5.5 | 100.0 | 1.9 | 100.0 |
| Socio-professional Groups | | | | | | |
| Legislators and hierarchical officials | 5.5 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Managers and members of the liberal professions | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Medium cadres | 4.9 | 0.1 | 2.4 | 0.4 | 1.3 | 0.4 |
| Employees | 10.0 | 0.6 | 1.7 | 0.7 | 0.5 | 0.4 |
| Tradesmen, middlemen and financiers | 13.0 | 2.0 | 3.5 | 3.2 | 1.3 | 3.0 |
| Farmers, fishers, foresters and others | 23.0 | 32.5 | 0.7 | 6.4 | 2.0 | 37.5 |
| Craftsmen and qualified workers | 19.0 | 6.6 | 3.7 | 7.7 | 1.2 | 5.0 |
| Workers and farming and fishing labor | 27.0 | 47.5 | 6.0 | 65.4 | 2.1 | 50.0 |
| Foremen for equipment, engines and the like | 11.0 | 0.8 | 2.0 | 0.9 | 0.7 | 0.7 |
| Non-agricultural labor, maintenance staff and workers in small crafts | 31.0 | 8.0 | 7.9 | 12.4 | 0.3 | 1.0 |
| Persons who cannot be classified according to a profession | 20.0 | 1.8 | 5.7 | 2.9 | 1.9 | 2.0 |
| Total | 24.0 | 100.0 | 5.5 | 100.0 | 1.9 | 100.0 |
| Situation within the Profession | | | | | | |
| Waged workers | 26.0 | 23.1 | 6.5 | 24.7 | 2.4 | 26.0 |
| Independent | 20.0 | 22.2 | 4.7 | 22.2 | 1.6 | 21.0 |
| Employers | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Household workers | 13.0 | 0.3 | 1.2 | 1.2 | 0.3 | 1.0 |
| Family assistant | 25.0 | 51.5 | 5.7 | 49.5 | 2.0 | 49.8 |
| Apprentices | 19.0 | 0.4 | 1.7 | 0.2 | 0.3 | 0.2 |
| Others | 15.0 | 0.5 | 1.3 | 0.2 | 0.1 | 0.0 |
| Unemployed person who has never worked | 20.0 | 2.0 | 5.4 | 2.0 | 1.9 | 2.0 |
| Total | 24.0 | 100.0 | 5.5 | 100.0 | 1.9 | 100.0 |

Source: Database of the ENNV 1998-99.

Table 11: Results of The Logistic Regression Explaining The Risk of Being Poor According to Socio-Economic Variables Hereunder: Targeted Population: 15 Years and Above

| Variables | Net effects of explanatory variables | | | |
|---------------------------------------|--------------------------------------|----------|----------|----------|
| | Urban | | Rural | |
| | Female | Male | Female | Male |
| Type of Activity (MR: Other Inactive) | | | | |
| Actively occupied | -0.61*** | -1.15*** | -0.61*** | -0.71*** |
| Unemployed | 0.53*** | 0.34*** | 0.18** | ns |
| Annuaunts/ Retired | -1.81* | -2.01** | -2.61* | -2.75* |
| Pupil/ Student | 0.14*** | 0.11*** | ns | 0.17** |
| Housewives | 0.39*** | - | 0.37*** | - |
| Scholastic level (MR: without level) | | | | |
| Primary or plus | -2.25*** | -1.75*** | -0.97** | -1.02*** |
| Size of Household | 1.1*** | 0.61*** | 1.74*** | 1.21*** |
| Log (DAMP) ²⁸ | -2.03*** | -1.33*** | -1.39*** | -1.09*** |
| Constant | 2.7*** | 3.01*** | 0.53*** | 1.12*** |
| No. of observations | 6025 | 5502 | 4387 | 3965 |

Note: - MR: modality of reference. Signification level: *(10%), **(5%), ***(1%) and NS(non-significant at 10%). The model was evaluated after the elimination of non-significant variables and those that are strongly collinear.

Source: ENNV 1998-99 database

²⁸ This is the logarithm of the Annual average expenditure per person

ANNEX 1

Presentation of the Logistic Model²⁷

- In logistic regression, the logarithmic risk (or chance) is estimated by the appearance of a dependent dichotomy event according to whether certain events are or are not produced. P indicates the probability for the realization of the independent event (here, it is the probability of being poor). Moreover, the modalities of categorical variables must be transformed beforehand to Boolean variables. The model is constructed as follows:

$$\frac{P}{1 - P} = \exp \beta_0 \prod_{i=1}^{i=n} \exp \beta_i X_i$$

- Probabilities that the studied event be realized are indicated in the following expression:
- $$P_i = \frac{\exp(\beta_0 + \beta X)}{1 + \exp(\beta_0 + \beta X)}$$
- β_0 represents the constant; β is the vector of parameters that measure the net effect of X on P ; and X is the vector of explanatory variables.
- In order to grasp the analytic scope of this model, one resorts to the notion of Relative Risk (R.R) or relative chance (R.C.) which is the relation between the risk associated to a modality i (Ri) and that of a modality of reference (Rr): Ri/Rr. The relative risk allows the examination of the impact of a modality on the probable occurrence of a dependent event, and that, in comparing individuals having this modality with those having a modality of reference.
- The R.R superior to 1 are associated to modalities that augment the chance of suffering poverty risk, relative to the modality of reference or to a modality of the same variable with a weaker R.R., alternatively

R.R. inferior to 1 are associated to modalities that diminish the chance of suffering poverty risk, relative to the modality of reference or to the same variable with a higher R.R. The greater the gap between R.R. and the unit, the stronger is the effect of the modality.

²⁷ For more information on the basic theory of this model, the reader is invited to refer to: Introductory statistics, 3rd Ed. New York: John Wiley and Sons, 1996.