

## Research Article

### Impact of Foreign Labor on the Dynamics and Sustainability of Agricultural Production Units, Case of Ghardaia Region (Algeria Northern Sahara)

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**Abstract:** In emerging countries, including Algeria, the determinants of integration into the labor market of individuals remain uncertain. At the Ghardaia region, like other regions of the Sahara, creating perimeters for agricultural value allowed the use of a significant amount of labor. Today, it is essential to understand the dynamics, nature and profile of the foreign labor force involved in the agro-economic activity, but also the costs and socio-economic gains for the region. This study aims to answer the question of how to better manage mobility of the workforce, reorganize the workforce, frame it and put up real instruments recycling, retraining and training of workers. These responses suggest further interest in the labor market and its organization for better understanding of the current dynamics in the production units.

**Keywords:** Agricultural production unit, employability, labor market, profile, Saharan region

## INTRODUCTION

The farms are located in the heart of the changes but also contemporary contradictions of Agriculture. They are the bedrock of the major agricultural revolutions in developed countries and they form the social base of the rain from the South, contributing to the supply of their domestic markets, but also to international markets. The rural exodus combine the decline evident that job seekers to crafts and/or painful (Yonnet, 2000).

The Algeria maintains its strategy to appeal to foreign labor, launched in 2003, for the completion of its major programs. The Chinese labor is the most important part of legal immigration. There are also irregular migration (most sub-Saharan), which has slowed since the outbreak of conflict in the Sahel and border security in southern Algeria (Mali, Niger), east (Tunisia and Libya) and West (the Morocco) (Boukli-Hassane and Talahite, 2008). Rural areas are today, namely the Saharan areas are at the heart of the concerns of governments seeking to respond to a growing social and economic necessity (Kanoun *et al.*, 2008).

The use of foreign labor, the low level of technology and lack of knowledge of workers exacerbate problems. That is why we propose to evaluate the profile settings that labor power through

surveys in different parts of the region of Ghardaia. In such a context, this article answers the question of how to manage the mobility of labor and clarify the forms of organization of the labor market.

## MATERIALS AND METHODS

**Presentation of the study area:** The region concerned is a vast desert area north of the Sahara and whose boundaries correspond approximately to those of the wilaya of Ghardaia (administrative district). Its land area is about 86,560 km<sup>2</sup> and has an estimated 413,000 people (MICL, 2012).

It includes, in the northern part of the country of M'Zab, a rocky area, torn by a series of wadis (rivers exceptional flow) highly branched. We find an oasis or more on each of the main wadis of this region, including the valley of the M'Zab, which includes in itself a group of five oases. In its southern part, the region includes El Goléa area.

Although the date palm cultivation is dominant, agriculture Ghardaia is relatively diversified. There are growing vegetables, fruit trees, cereals (barley and durum wheat), in addition to the peanut crop. The existing livestock consists primarily of sheep; goat and camel, but there are also farms dairy cattle and broiler.

Table 1: The different farms selected for investigation

Towns	Number of farming opportunities	Number of surveyed farming opportunities	(%)
Guerrara	473	200	42.28
Berriane	334	170	50.89
Zelfana	270	123	45.55
El Atteuf	104	40	38.46
Bounoura	66	24	36.36
Daya Ben Dahoua	28	08	28.57
Ghardaïa	189	50	26.45
Metlili	182	81	44.50
El Goléa	175	96	54.58
Mansourah	277	164	59.20
Hassi Lefhal	362	130	35.91
Seb Seb	146	79	48.17
Hassi Guara	734	240	32.69
Total	3340	1405	42.06

**Sampling:** Our approach was based on socio-economic surveys and research with operators and foreign labor, agricultural institutions and local authorities. To conduct our investigations we selected 1405 production units. For our choice, we mainly based on the mass of foreign labor ( $\geq 01$ ), the specialization of the owner, as well as farm size ( $\geq 02$  ha).

As part of this study, a representative sample of the reality of agricultural economic units in the region was chosen. It consisted of 1405 farms larger than 02 ha. The farms of less than 02 ha have been deliberately excluded from the sample of work (Table 1).

Like all scientific research, aimed concrete observation, our approach was to analyze the various data and draw the necessary conclusions. Farms were monitored from May 2013 to March 2014.

The following table lists the different selected farms to be investigated.

## RESULTS AND DISCUSSION

**Evolution of the labor market:** The job market, its evolution and its prospects are currently one of the priorities of the action program initiated by the government. The task is made more difficult whereas the objectives of the reorganization of the labor market are not restricted to the legal component. Indeed, the insertion devices for use in place, in recent years, have revived the dynamics of the labor market. However, the limits are strongly emerged and the problem of unemployment is alarming (Bouadam and Daoudi, 2010).

Referring to data from the National Statistics Office (O.N.S., 2014), the rate of unemployment in Algeria rose from 23.7% in 2003 to 17.7% in 2004 and 15.5% in 2005. A geographical mobility and sector workers and participation in the productivity of foreign labor.

Lassassi and Hammouda (2012) note that the labor force was estimated at 9,969,000 people in October 2007, 29.6% of the total population of the country and 40.9% of all people of working age. It is composed mostly male. Women represent 16.5% of total assets.

Finally, changes in the reservoir of labor for the coming years should also be assessed quantitatively.

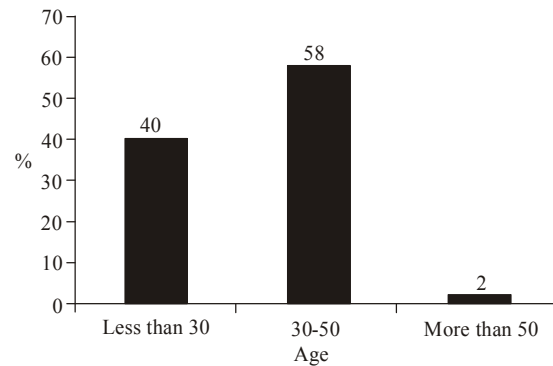


Fig. 1: Identification of the foreign labor in function of age

The prospect of a decline in the labor force over the next 10 years is similar to the scarcity of the factors of production. Substitution of capital for labor witnessed restrictions, especially regarding labor; businesses will face shortages of labor, which, in a competitive environment, will also lead to rising average wages. In this sense, the call to the foreign labor force can be a solution (Deneuve, 2001).

**Root of the foreign workers:** Identifying labor proves extremely important, because the variables studied, are an indicator of how the work force took over the task of their farms. Like many other industries, agriculture has great need for these workers because of growing scarcity of labor work. Farms have indeed characteristic of focus today more than half of employment by industry and trade (D.S.A., 2014). To overcome this shortage of labor, farmers rely on foreign workers, mainly from neighboring countries. This availability of arms, however, should not overshadow common underemployment (Srairi *et al.*, 2013).

The study revealed that almost all (88.3%) of the manpower came from Francophone countries, namely Mali (30%), Niger and Guinea by a small percentage (4.7%). Also, (9.7%) of the workforce comes from English speaking countries and finally the only Arab country provided the manpower is Syria (Civil War). The principle is to import so constantly renewed, a the manpower, not only cheap but they do not claim for their rights, deprived of family shape, so that it does not or little use of social infrastructure country (Table 2). The use of foreign labor is common, especially for interventions to cash crops (cereals, gardening and arboriculture, mostly olive) (Srairi *et al.*, 2013).

The flow of foreign labor in the region of Ghardaia is explained by the proximity of these countries and the flee from recurrent conflicts that occur in these countries. The origin of these migrants, do not share neither the language nor Arab culture, reduces the likelihood of long-term establishment. Nevertheless, the local workforce continues to provide some seasonal work, but more importantly, it helps to meet the needs of flexibility farms (Bensaha, 2009).

Table 2: Distribution of foreign labor according their origin

Country (%)	Language					English		Arabic	
	French								
	Mali	Niger	Cote d'ivoire	Burkina faso	Bénin	Guinée	Nigeria	Liberia	Syria
Total	30	28	11.5	8	6.1	4.7	5.5	4.2	2
	88.3						9.7		2

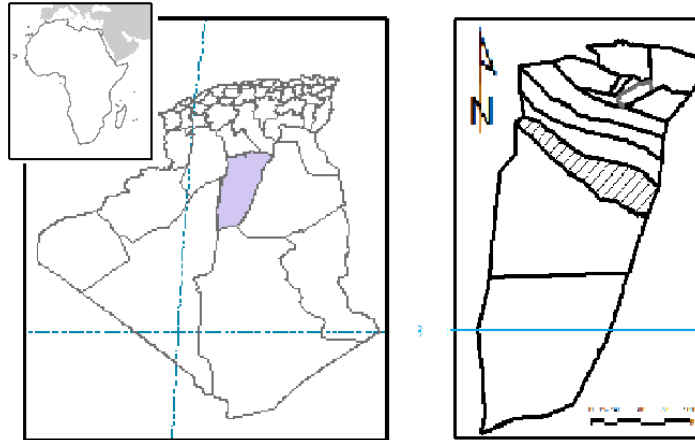


Fig. 2: Geo-localization of study area

**Workforce age:** The number of farms studied and the percentage of the labor used depending on different age groups are shown in Fig. 1.

From Fig. 2, we note that (40%) of the workforce is made up of young people whose age does not exceed 30 years. It continues to grow in the adult rank from (30-50 years) (58%) of workers; the last category (over 50 years) is noted with (2%).

According to the survey, it appears that the majority of foreign workers in the region of Ghardaia are rather more young than old; this explains the exodus of young people from their country to go to Europe and to help their poor families. It is also noted that this study force is characterized by fitness. They are actively involved in the production process. However, this does not reassure the shift by the transmission of the agricultural activity from parents to their offspring (Bensaha *et al.*, 2012).

In our study, the majority of farmers prefer to invest in the manpower young than old because of good acquisition techniques and profitability. It is worth noting the absence of female sex workers, because of the fact of the nature of the Sahara and mostly traditions.

**Level of education and professional technicality:** Survey results show that the level of education of foreign labor in the region is low (primary). Therefore, we understand that it is almost impossible for these people to perform certain tasks such as reading the catalog of quarantine treatment or setting an agricultural implement. Over 90% of farmers surveyed said they suffer the educational level of workers. Their

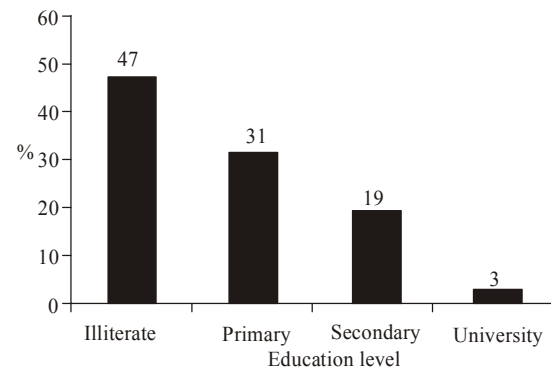


Fig. 3: Percentage of the education level of foreign labor

low level of education is a problem for the adoption of new techniques introduced in the area and that require technical expertise (Bensaha and Arbouche, 2013). Because of their low level of education and because they speak neither French nor English, immigrants make up a very large extent, based on our studies of the level of education a handicap communication the majority of workers were classified as low skilled (MADR, 2012).

The different levels of education workers are illustrated in Fig. 3. From Fig. 3, more than (1/3) of workers surveyed has seniority greater than 02 years in the field of agriculture and show stability in operation. These cases are found in farms with more land and capital practicing more remunerative crops.

The results of our study show that (47%) of workers do not have a level (illiterate), followed by those with primary level (31%). As for workers with secondary level are noted by (19%) and finally comes

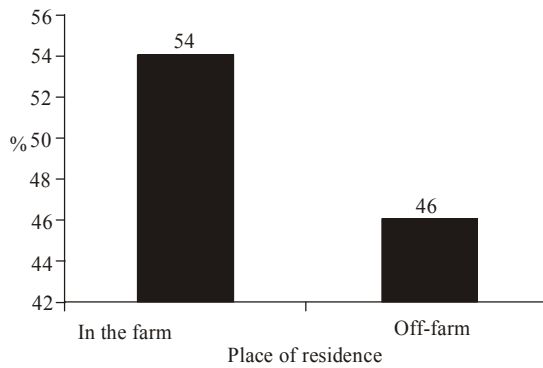


Fig. 4: Place of residence of foreign labor

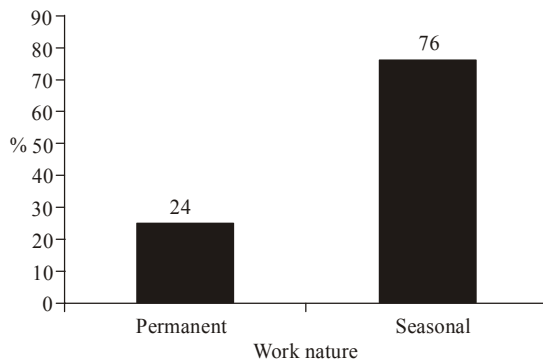


Fig. 5: Identification of the foreign labor in function of durability

the category of academics with only (3%). In terms of achieving the tasks, workers in high school and university are characterized by high efficiency and cost-effectiveness compared to other levels of education. According to Bensaha and Arbouche (2013) if the experience is an asset for this success, this experience is based on empirical knowledge with very little scientific knowledge. This is incompatible with good cultivation techniques; the labor force of low technical level is often unable to quickly prevent situations that may affect the performance of animals and crops. Finally, through their skills, are the workers able to make a dynamic development in the production units for the upgrade of Agriculture (productivity, quality) in the main towns of Ghardaia?

Finally, most farmers interviewed felt that the majority of foreign workers are not trained to meet their needs and by their instability which threatens the future of the business. So we are dealing with operators seeking to further stabilize their seasonal labor. Modern farming export-oriented agricultural products requires only labor very low-skilled (in contrast to the foreign workforce) (D.S.A., 2014).

**Location and condition of residence:** Been aware of the location of residence of workers surveyed is very important socially and economically. We find that the majority of the workforces (54%) dwell in the

exploitation. According to farmers, to save transportation costs and avoids checks Patrol enforcement (Fig. 4).

What is remained represents (46%) say that their homes are far from their workplaces. The remoteness of farms is considered by most workers as a handicap and adversely affects the timeliness and efficiency (Bensaha, 2009).

The scope of farming opportunities in no way constitute a center of life (village or group homes), as is the case of former groves where farms are often called "gardens" located close to residential areas (Bouammar, 2010).

More broadly, it is clear that the behavior of the workforce is partly asserted by its environment. A worker who is close to the city where he can easily contact the various departments of life (hospital, post office, shops etc.) will probably not have the same behavior as that its production far from the village which is the sole representative of the agricultural function (condition of deplorable living). For these workers, job insecurity is sometimes reinforced by insecurity in terms of accommodation and even a precarious in terms of right of residence for immigrant workers. Therefore we can assume that there will affect the economy and the perception of future production units.

**Nature and working conditions in agriculture:**

Farms with more land and capital practice more remunerative crops, then having more use of recruited labor (Srairi *et al.*, 2013). Since the start of the event to create farming opportunities perimeters, the demand for foreign labor in agriculture has significantly increased in the region all along with the arable land. According to Bensaha (2009) notes that a weakness of the use of the local workforce drives the recruitment of foreign workers.

Thanks to the multiple devices, the government aims at the creation of permanent employment for unemployed youth, but unfortunately the results observed in the field are disappointing. The survey shows that the use of mass handmade seasonal foreign workers and permanent is always present in these farms, with 76 and 24%, except in remote farms and small size (Fig. 5). According to the statements of farmers, daily on these farms namely tasks: weeding, cleaning the barn, feeding, planting, cultivation, plowing and harvesting require much high number of labor and especially in seasonal labor. The use of this type of hand works varies in proportion to the size of the operation (Bensaha and Arbouche, 2013).

This workforce often has low professional qualification (no training), except for labor from Syria, who graduated and have professional experience in conducting drilling by percussion and management pivots centers for field crops (grain and forage). The latter is particularly courted by farmers.

Yonnet (2000) note that the working conditions of these employees are more or less permanent poor: pay close to the legal minimum, hygiene and questionable safety, adverse and approximate count hours for employees. Submission to weather conditions makes controlling time and conditions even more random work in handicrafts. According to our survey, on average, the volume of work on farms that are the subject of this research rises to 36 h/week/farm. The evaluation of the difficulty of tasks determined by the survey in the 1405 farms shows that weeding and digging pots for planting has mentioned more (90% response), while the work on direct care to animals (milking, watering) seem considered less painful (10-5%).

In winter, the daily work is on average half that of summer. In terms of wages, farmers pay on average 700 Da/day/person is 6.479 Euro, unlike an employee in the same area in France is paid 94 Euro/day. This explains the motivation of these young people to travel to Europe in the hope of a better life.

The practice of mutual aid, commonly known as "Touiza" in addition to being a collective way to deal with the requirements of development of a hostile environment, it is also a factor of social cohesion (Bensaha, 2009).

This system allows the practice of transmitting of a local savoir-faire to young farmers, as long as it is done by group. It is usually of short duration (1-3 days equivalent per year). The family labor ensures the exploitation of revenue opportunities that cannot generate employees, especially during periods of peak activity (White *et al.*, 2005). We found that volunteering is no longer practiced in the majority of farms.

**Health and hygiene of the foreign labor:** Precarious conditions of agricultural employed are especially an important element of the social dimension of sustainable rural development. D.S.P. (2014) states that two thirds of illegal immigrants have neither a vaccination or have undergone a medical examination (balance sheets of Health) against contagious diseases in their countries of origin. This situation could lead to uncontrollable epidemics in the region. Most farmers do not care about the safety and health of their workers. They suffer from undernourishment and sunburn during the summer.

Some immigrants reflect these conditions. Most of the budget of working families is absorbed by the food needs. Then there is housing, which is expensive: the houses are often unhealthy and families usually just a single piece. The workers have only a day per week of rest (and never have holidays).

The difficulties faced by young people find employment commensurate with their ability and their desire, are in particular a social problem that many

articles have recently attracted attention, but few documented works.

Public authorities have promised a series of measures to ease restrictions on the stay of foreign workers and improve their working conditions.

**What prospects to solve this situation?** Labor force working legally or illegally, present in the region an important part of the wage. The agricultural wage is the lowest of the production circuit link. Their salary condition is severely affected (Yonnet, 2000).

In the light of what has been said, the non qualification of persons, unstable positions, multiple diseases and poor working conditions, it is essential to establish management strategies for labor, aiming at a compromise between recruitment difficulties, the cost of the workforce and the quality of work. Also, there should be an integration and enhancement of the local workforce to meet sustainable implementation that result in the establishment of new exogenous ethnic communities.

A better understanding of the current dynamics can provide a number of tools to assist decision-making on policies to use temporary foreign workers, actions to be taken in terms of support for the structuring and the organization of the supply of seasonal work and in terms of support for job search and professionalization of seasonal workers, to implement policies towards these groups of workers in a precarious situation, especially in terms of housing and/or health.

## CONCLUSION

This study is intended as an overview of the foreign workforce in the region of Ghardaia and assessed the impact of inputs and constraints on local development. This foreign labor has not been an effective solution to the reduction of all imbalances in the labor market in the Saharan regions.

These findings may provide useful guidance to establish a development strategy to achieve sustainable profitability of agricultural production. This should encourage public authorities to regulate the functioning of the labor market and manage the mobility of labor. Can we speak of a sustainable and profitable agriculture which relies on a foreign labor force unskilled?

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