

**Paper for the 6th Conference of the Italian Association of Agricultural and Applied Economics
(AIEAA)**

June 15-16, 2017; Piacenza, Italy

Economics and Politics of Migration: Implications for Agriculture and Food

**“Effects of Youth Migration on Agricultural Production and Employment in the
Rural Areas of Origin in Tunisia”**

Draft based on Preliminary and Partial Results

Authors: Iván Martín, Michele Nori and Alessia Bacchi¹

1. Introduction

In the context of a globalized economy the agricultural sector plays a key role in the livelihoods and societies around the Mediterranean Sea (CIHEAM, 2008). In Tunisia, agriculture represents an important sector for the country's economy and society. World Bank's data show that in 2014 the share of the country's GDP derived from agriculture was 9.68 % and employment in agriculture as a share of total employment was 14.8 % (World Bank, 2014). However, in line with regional trends (CIHEAM, 2008 and 2014) structural constraints limit farming productivity in Tunisia: scarce natural resources (e.g. water), inadequate access to new technologies and financial resources, and uneven distribution of land (Boughzala and Hamdi, 2014). The underdevelopment of the agricultural sector forces rural households to integrate their income from agricultural activities with revenues from off-farm sources, including emigration (Nori et al. 2009). In the period 2009-2014 both internal and external migrants were largely young (between 20 and 40 years old); main reason to migrate for men for males is employment while women mostly migrate for marriage or family reasons (INS, 2016).

In the last decade, optimistic views have prevailed in the debate on the overall effects of migration on the area of origin (De Haas, 2008). However, the extent and the direction of migration impacts on origin areas crucially depend on factors such as households' and individuals' characteristics (Deotti and Estruch, 2016), migration patterns and duration of migration (De Haas 2008; European Commission, 2007), migrants' relations with the area of origin (De Haas, 2007), and specific development context in the areas of origin (De Haas, 2005).

In Tunisia, researches on rural migration's impact on origin areas have highlighted divergent results. However, research has so far mostly focused on effects of migrants' remittances and investments and have overlooked other migrants' transfers (e.g. skills, contacts and know how). Meanwhile, the impact of recurrent, temporary, and circular moves on rural economy and society has not been explored.

¹ Corresponding author: Alessia Bacchi, alessia.bacchi@eui.eu.

2. Objectives

This article paper aims to examine the effects and implications of youth migration on the agricultural production and employment in the rural areas of origin in Tunisia. The analysis covers both material and immaterial migrants' contributions and takes into account the role played by migration patterns. The paper's research questions explore:

1. whether migration affects rural employment in the areas of origin. The analysis focuses on migration effects on: work redistribution within the origin rural household; employment of external labour force to compensate labour shortages due to migrants' departure; women's and men's role in agriculture and herding activities;
2. whether migration supports agro-pastoral production. The paper will analyze migrants' investments in the agro-pastoral sector in their area of origin; migrants' transfers (material and immaterial) and their use in the rural area of origin; other forms of migrants' participation in the origin household economic activities, and major challenges in migrants' engagement to the development of origin areas;
3. whether migration affects land tenure and use. In particular, the paper will examine whether migration facilitates land property concentration, changes in cultures, farm abandonment/interruption of cultures in marginal lands;
4. whether migration patterns (e.g. internal, international migration, and seasonal/circular migration; male vs. female migration, skilled vs. non-skilled migration) play a key role on the size and dynamics of these effects on the rural economy (i.e. rural employment, agro-pastoral production, and land tenure and use) in migrant's origin areas.

By answering the above questions, this paper contributes to generate new knowledge and capitalize on existing evidence and research on the implications of rural youth migration on the local rural economy and employment in areas of origin, with a view to help design informed policies intended to channel and facilitate migrants' contributions towards the development of the agro-pastoral system in their origin areas.

However, please note that this paper is based on the findings of the research study on "Rural Migration in Tunisia (RuMiT)" funded by the Italian Agency for Development Cooperation and carried out by the European University Institute (EUI)'s Migration Policy Centre (MPC). Since the implementation of the survey ended at the beginning of June, it has not been possible to include in this paper the final analysis of its results but only some preliminary findings. Therefore, this paper analyzes the findings from the qualitative study and some preliminary findings of the survey. However, the tables with the survey's results have been before the cleaning of the database.

3. The Nexus between Rural Migration and the Development of Origin Areas: a Literature Review

Until the early 2000s, a general pessimism prevailed among scholars and policy-makers on the impact of migration on the development of migrants' areas of origin. According to the prevalent opinion, migration aggravated the economic situation of the migrants' sending countries. In particular, one of the prevalent paradigms in migration studies, the "historical-structural" thought, blames migration for the loss of the population that can best contribute to the growth of the country of origin, usually young workers with an entrepreneurial and brave spirit (De Haas, 2007).

However, in the last decade the historical-structural paradigm has faded away and this has generated a turnaround of attitude towards the effects of migration on the origin area. Currently optimistic views

are prevalent in the debate on migration and development (De Haas, 2008). Additionally, there is a general consensus that migration does not only impact the economy of the origin areas but its effects are touching several life spheres such as social remittances and behaviours. The nature of the effects of migration on the areas of origin is strictly linked to the notion of development, which has been traditionally studied under a materialist perspective and measured in terms of income or economic growth. However, in the late 1990s Sen expanded the development concept linking it to people's freedom, instead of their income. "Human capability", namely the people's ability to lead their life and to amplify their possibilities of choice, has become the main indicator of development ahead of income and material growth (Sen, 1999). Development indicators are not limited to economic growth, but include socio-political elements that measure the quality of life such as social well-being, income inequality, gender equality, universal access to primary education, health care and meaningful employment.

In line with Sen's new concept of development, Levitt argues that besides material resources, migrants are carriers of "social remittances". These include new ideas, values, behaviours, and identities that can help the social, cultural and political development of the area of origin. They eventually drive to democratization, transparency and the emancipation of vulnerable groups, such as women and minorities. In the case of international migration, migrants associations abroad usually have a key role (Levitt, 1998). In the context of the Multi-Sited Family Systems (MFS) approach, the Sen's human capability concept can be changed into "circulatory capability". This concept concerns with the household's capacity to transfer material and immaterial resources (e.g. agricultural assets and tools, financial resources as well as skills, contacts, and know-how) within the household mobility space (Freguin-Gresh et al., 2014).

Concerning development in rural areas, this shift from a material to a social perspective moved scholars' focus from food production to the enhancement of peoples' capacities to secure their own livelihoods. In line with the SLA approach, a "sustainable livelihood" is defined as a livelihood that can cope with and recover from the stresses and shocks and maintain or enhance its capabilities and assets both now and in the future without undermining the natural resource basis (Frankenberger, 2000).

Regarding the effects of rural migration on labour productivity, a survey's respondents in Nigeria indicated as main effects of rural-urban youth migration in the country reduction of labour force in agricultural sector and low agricultural productivity, which affects negatively the growth of agriculture sector (Mbah, 2016). A research on rural-to-urban labour migration in Southwest China confirms that migrant households work less intensively in agricultural activities than non-migrant households. However, they enjoyed higher cash capita income and own more consumer assets. As a consequence, the study concludes that migration from rural to metropolitan areas diminishes migrant households' dependency on agriculture and local natural resources for subsistence. However, migration can lead to labour shortages that can result in migrant households under-cultivating or abandoning their farmland. This is particularly true in a legal context such as in China where farmers do not have property rights and cannot sell their farm (Qin, 2010).

3.1 Factors influencing migration impact on origin areas

As previously mentioned, currently the debate on migration and development is characterised by an optimistic approach. However, due to the endogeneity of migration decisions² few researches can prove a direct relationship between migration and changes in the areas of origin, for instance in terms of

² Some authors talk of "Reverse Causality" referring to the overlapping nature of the determinants and effects of migration decisions so that migration determinants are shaped by the migration itself. Please see: Tegegne (2016)

income, food security and inequality outcomes. Currently, there is a general consensus that the effects of migration on the areas of origin crucially depend on the local context on the countries of origin together with households' and individuals' characteristics (Deotti and Estruch, 2016).

Additionally, the impact of migration on migrants' areas of origin is never purely positive or negative. The extent and the direction of migration effects depends on factors such as migrants' characteristics (e.g. age, education, gender), migration patterns and duration of migration, migrants' relations with area of origin, and specific development context in the areas of origin.

Concerning migration patterns, a traditional approach distinguishes migration in permanent and temporary. This latter refers to individuals moving usually for work purposes with the aim of accumulating savings to be used in the area of origin while permanent migration relates to the individual's definitive move that can be accompanied by the whole family (Glytsos, 1997). However, in the 1990s the Transnational paradigm emerged claiming that the current global economy and the new technologies in the communication and transport sectors increase migrants' possibilities to be involved in two or more countries at the same time (De Haas, 2008). Therefore, migrants produce transnational linkages and transfers between the country of destination and the country of origin. Eventually they adopt transnational identities and develop double loyalties toward both countries. This lead to a perspective shift on migration, from a definitive move to a continuous and multi-dimensional process linking two countries. Therefore, the distinction between "permanent", "temporary," and "return migrant" becomes obsolete (Faist, 2010).

Traditionally, rural population has been considered sedentary in line with the assumption that the collective identity of a social group is deeply grounded on the land where this lives, which assumes a homology between the social group and the territory (Guétat-Bernard, 2007). However, this classical approach fails to represent the reality of the rural areas in Southern countries where studies applying a SRL approach highlight ongoing traditional and structured migration practices (Sourisseau et al., 2012). Losch (2016) points out a growing tendency to short and temporary migration practice (i.e. weeks or days moves) in Africa. As a consequence, the distinction between urban and rural space is obsolete and does not reflect the hybrid relationship between cities and the countryside.

In contrast with the traditional approach, the Multi-Sited Family Systems (MFS) argues that rural households are scattered over an intricate ensemble of places that forms a "household mobility space". This space is not merely physical but includes all transfers and connections the household produces. Within this space they move at different levels in a social and temporal continuum that includes rural and urban areas. This theory is based on the "multilocalisation" concept that enlarges the notion of migration –usually considered as a move that implies a change of residence - to embrace all forms of mobility, including recurrent, temporary, and circular moves for different kinds of reasons (Freguin-Gresh et al., 2014).

Although difficult to be captured in national statistical records (Cingolani, 2009), forms of seasonal and circular migration - such as nomadism, pilgrimage, as well as migration linked cultivation changes and marriage practices – are commonly practiced by the poorest part of the rural population as a livelihood strategy (Bakewell, 2009).

Finally, migration can involve individuals that hold different degrees of skills and education diplomas. Skilled migrants can transfer to the area of origin knowledge and skills, a phenomenon called "brain circulation" (De Haas, 2007). However, in order for brain circulation to be effective the migration experience should bring an additional value to the individual's initial professional skills (Dos Santos and Postel-Vinay, 2003). Moreover, the area of origin should have an economy structure that enables to receive and use the acquired expertise and skills (De Haas, 2007).

4. Rural Youth Migration in Tunisia

4.1 *The Agricultural Sector in Tunisia*

Tunisia is affected by structural and historical socio-economic inequality. In the period preceding the 2011 revolution, an annual GDP growth of about 5 percent was accompanied by high unemployment and poverty rates with strong disparities between regions (ONEQ, 2014). These disparities have been exacerbated by government's interventions in favour of export-oriented companies located in the coast governorates. Regarding the agricultural sector, policy measures have subsidized products mainly produced on the coast areas and for which Tunisia is not competitive (e.g. cereals, beef, and milk) while disregarding those cultivations produced in the interior regions (World Bank, 2014a). Government's subsidies and market-oriented large farmers have contributed to improve the added value of agriculture – which increased at about 4 percent per year over the period of 1980-2000 - because they could use new technologies (e.g. fertilizers and other chemical inputs, and irrigation systems) and carry out management and efficiency improvements. However, this growth of the agricultural sector has not corresponded to an increase of labour demand in the same period. Additionally, the minimum salary in the agricultural sector has only increased of 0.5 percent per year. As a consequence, small farmers have been pushed to carry out additional economic activities, for instance in the construction sector (Ayadi et al., 2004).

In Tunisia, structural constraints limit farming productivity. These include scarcity natural resources (i.e. water), inadequate access to new technologies and financial resources, and uneven distribution of land. Therefore, agricultural activity remains mainly pluvial, extensive, and highly dependent on climatic changes, with consequences on food security. For instance, Tunisia is highly dependent on cereal imports (Ouertani, 2016).

In the agricultural sector, land property is parcelled due to existing property distribution rights and demographic pressure (Gafrej, 2016) and the majority of population in rural areas do not own land or own micro-farms.³ Since the government has never succeeded in adopting a land reform in favour of low-income farmers, land distribution has remained the same than in the 1960s with 22 percent of total farm land belonging to the 1.2% richest farmers and 10 percent to more than more (Ayadi et al. 2004). Land property fragmentation limits farmers' access to credit and insurance (Gafrej, 2016), and negatively affects the poverty and consumption rates in rural areas.⁴

4.2 *Rural Migration in Tunisia*

Agricultural activities hold a major share of rural regions' economy. Therefore, the underdevelopment of the agricultural sector pushes Tunisian youth to migrate from rural to urban areas to look for a job (Boughzala and Hamdi, 2014). The analysis of the inter-governorates migration in Tunisia between 1999 to 2004 shows that internal migrants move from economically depressed interior areas on the West to coast governorates with low unemployment rate and high per capita expenditure (Amara and Jemmali, 2016). Moreover, the regions on the coast are perceived as offering better opportunities to develop commercial (legal or illegal) activities with foreign economies and to migrate abroad (Lamine, (2008). According to Bilgili and Marchand, rural-urban migration is also the consequence of an adaptive

³ Micro farms are defined as less than 10 hectares of rather arid land or less than two hectares of irrigated land. please see: Boughzala and Hamdi (2014)

⁴ In 2010, the poverty rate in rural areas (22.6) was almost 50 percent higher than the national average (15.5) and more than double than in large cities (9.0). Employment in the agricultural sector receives low wages. The 2005 consumption survey shows a consumption level much lower in rural areas than in metropolitan areas. Please see: Boughzala and Hamdi (2014)

strategy to a worsening environment related to the current climate change although this is not the only migration driver (Bilgili, and Marchand, 2016). Overall the rural component of the Tunisian population has shifted from 60% in 1960 to a mere 32% in 2014 (INS, 2014).

According to Belhedi, land tenure structure influences migration movement in Tunisia rural areas. Where the land is mainly collective or lent by the state emigration is limited due to local population's fear to lose their land rights in case of departure (i.e. in the mid-West and extreme Nord-West regions) while a land ownership regime facilitates population movements (Belhedi, 2001).

Young adults usually have a higher inclination to migrate than older people and they are mostly moving from rural to metropolitan areas (Johnson and Fuguitt, 2000). Regarding Tunisia, its demography is characterized by a large youth population bulge, with 51 percent of the population under 30 years old (Churchill, 2013). In the period 2009-2014 both internal and external migrants were largely young (between 20 and 40 years old) (INS, 2016). The analysis of the inter-governorates migration in Tunisia shows that migration flows are mostly from rural to metropolitan areas, especially in the case of male youth (Amara and Jemmali, 2016; Drissi, 2014). Between 2008 and 2010, 28 percent of Tunisians expressed the wish to migrate. However, the percentage among 15-24 years old Tunisians was much higher (44 percent) (OCDE, 2012).

However, an analysis of the data from the 2014 Tunisia Labour Market Panel Survey (TLMPS) shows that after the 2011 revolution the age of emigration from Tunisia increases (27 years compared to 25 years among pre-revolution migrants). The analysis highlights other differences between migrants that have migrated before and after the 2011 revolution. The proportion of single migrants has increased considerably (58.3 percent compared to 38.6 percent before 2011). Moreover, although migrants are more educated than the non-migrants and returnees after the 2011 revolution the proportion of migrants with a tertiary education has lowered (21.8 percent compared to 26.0 percent before 2011) (David and Marouani, 2017).

Unemployment among young women is particularly high (Bardak, 2014). Concerning their participation in the agricultural employment, as previously mentioned this is quite high but mainly limited to unpaid family work or seasonal work, which offers the lowest wages in the country (Boughzala and Hamdi, 2014). However, social norms limit women's sectors of work and their mobility for employment. Their families would tolerate young women move to other areas only in case their employment is socially acceptable – for instance as nurse or teacher – or increases their possibility to marry (Drissi, 2014).

4.3 Migration Patterns

In the last years, internal migration has been growing. As mentioned, the analysis of the inter-governorates migration in Tunisia between 1999 to 2004 shows that migration flows go mostly from governorates with an agricultural-based economy and poor agro-ecological conditions (i.e. Siliana, El Kef, Kairouan, Kasserine, and Béja) towards the coast (i.e. Ariana, Ben Arous, Manouba, Sousse, Tunis, and Monastir) (Amara and Jemmali , 2016).

Despite the poor working conditions in metropolitan areas, Tunisian rural youth tend to migrate to cities. This is particularly true for young men while young women mostly migrate to other rural areas (Drissi, 2014). In Tunisia internal rural-urban migrants tend to establish nuclear family unit instead of maintaining the original extended households. Nevertheless, they retain kinship ties with their origin household (Charrad and Goeken, 2006). According to Holmes-Eber (1997), migrant household prefer to live beside their origin family and visit them frequently. The previously mentioned analysis of the inter-

governorates 1999 – 2004 migration shows a negative relation between internal migration and geographical distance and a prominence of short distance migration (Amara and Jemmali, 2016).

Concerning international migration, Europe is the main destination of international migrants from Tunisia (David and Marouani, 2017; Boubakri, (2010). Data from the previously mentioned 2014 TLMPS survey indicate that although the majority of Tunisian migrants come from urban areas, after the 2011 revolution the percentage of migrants from rural areas has increased remarkably (David and Marouani, 2017).

Support from family and networks play a key role in facilitating migration (Bilgili and Marchand, 2016). According to the previously mentioned TLMPS survey, the majority of migrants could find employment in the destination country through their family and friends networks (David and Marouani, 2017). The previously mentioned qualitative study in Tunisia reveals that in the majority of cases the migration decision is planned jointly with the family. This tendency has developed in the 1990s while previously migration was mostly an individual's decision. Currently, households financially support the migration project, even if illegal, and extended family networks usually provide lodging and sustenance in the destination country until migrants obtain an employment. However, networks' support varies according to the origin area (Kriaa, 2013). According to Belhedi, households plan the migration of single members – either for working or family reunion reasons, or according to circular/seasonal patterns – to avoid the departure of the entire family. Migration is facilitated in areas where the social networks are more developed and can support migrants' settlement in destination areas or take care of their family members left behind (e.g. in the Southern areas such as Jerba, Nefzaoua, Ghomrassen, Matmata, Mareth, Chebba, Msaken) (Belhedi, 2001).

4.4 Effects of Rural Migration

In Tunisia, researches on rural migration's impact on origin areas have highlighted divergent results. According to Drissi (2014) youth migration from rural to urban areas diminishes labour force in the agricultural sector and as a consequence has a negative impact on its economic growth and productivity. Yet, according to Amara and Jemmali (2016), internal migration in Tunisia has contributed to even regional disparities and redistribute wealth between more advantaged coastal areas to less advantaged inland regions.

For instance, survey conducted between 1998 and 2001 among households living in three oases in Tunisia found out that migration is a prominent development factor of the economy of the oases and the nearby metropolitan areas. This is particularly true in the case of international migration since internal migrant household are quite similar to non-migrant households as relates to income and expenditure patterns. On average, international migrant households' income level is double that non-migrant households. Migrant households tend to invest more than non-migrants and in both agricultural and non-agricultural sectors (i.e. coffee-houses, restaurants and hotels, as well as in the retail, handicrafts and transport sectors). Finally, the study findings show that return migrants are particularly keen on investing on innovative techniques or cropping patterns, whose costs are not bearable by local farmers.⁵

Instead, data on return migrants from the previously mentioned 2014 TLMPS show that only a small percentage declared coming back either to look after family business or farm (3.3 percent) or to start a business in the home country (10.3 percent). However, a much higher of returnees than non-migrants

⁵ The surveys were conducted in two oases in Mareth, a coastal area near Médenine, and in the oasis in Fatnassa, in the continental oasis area of Nefzaoua. Please see: De Haas, (2001).

are employers or self-employed (54 percent compared to 21 percent of non-migrants) (David and Marouani, 2017).

According to Amara and Jemmali (2016), internal migration in Tunisia has contributed to even regional disparities and redistribute wealth between more advantaged coastal areas to less advantaged inland regions. However, as regards international migration, data related to official money transfers in 2007 show that main destinations are the governorate on the coast (Tunis, Médenine, Nabeul, Sousse, Bizerte, Ben Arous, and Mahdia) while interior governorates – mostly rural areas - receive only 3 percent of transfers each one. This data may suggest that migration abroad involves more the population resident in the coast areas (Boubakri, 2010). Yet, official data do not capture the total amount of migrants' money transfers since these can be sent via informal channels as well. For instance, field surveys in the interior governorate of Kasserine reveal an active role of migrants in initiating agricultural projects that official data on migrants' transfers do not show (Boubakri, 2014). According to Boubakri (2002), in Tunisia there are no reliable statistical tools to measure regional economic growth and therefore to evaluate migrants' contributions to it.

Findings from the mentioned qualitative study among migrant households in Tunisia show that as soon as migrants are installed in the destination country they transfer money to their origin families. Most interviewed households confirmed that their life has improved because of remittances. However, remittances' amount, their regularity and the transfer method depends on migrants' revenue, profession, and education. The final use of the received remittances is diversified and usually covers productive investments as well consumption expenditures for education, health care as well as housing. As regards productive investments, migrants can financially support their friends' or family's economic activities. However, long-term migrants, who left Tunisia before the 1990s, prefer to invest in housing while more recent migrants are keen towards productive investments. As regards return migrants, in most case their productive investments have not been successful. Finally, the study points out various negative effects derived from migration on the origin households. First, the family members left behind show psychological and emotional distress as a consequence of the departure of the family members, usually the father/husband. Additionally, migrants' young close relatives in Tunisia (e.g. son or brother) renounce to look for employment since the remittances they receive from their kin abroad is higher of what they could earn if they work (Kria, 2013).

In the above mentioned 2014 TLMPs survey (David and Marouani, 2017), almost half of interviewed returnees declared not to have sent remittances to their family during their period abroad. Moreover, only a small percentage of surveyed households have received remittances from abroad over the last year. For these, remittances represented the most important share of the non-labour income (82 percent) and a significant part was received mainly via informal channels (e.g. friends and relatives). The main recipients are the migrants' sons or daughters while only in one fifth of the case they were sent to the spouses. However, data present a significant prevalence of female-headed households among the remittance receiving households (34.4 percent) compared to non-receiving ones (18 percent). Regarding international migration from the rural areas in the South of Tunisia, at least at the beginning remittances are mostly used for the origin household's consumption needs since many migrants are married men with wives and children left at home. Otherwise, investments target mainly trading activities while usually migrants are not interested in the agricultural sector due to the mentioned structural problems (i.e. limited irrigation, arid soil, and complex land tenure). However, according to Saad and Bourbouze (2010) migrants that left in the 1960s and returned in the late 1990s are currently buying land and herds from local small farmers with the money they saved during their years abroad. As a consequence, these local small farmers abandon their farm and start work in these big estates, which results in a land concentration.

5. The Research Study's Methodology

This article is based on the findings of the research study on “Rural Migration in Tunisia (RuMiT)” funded by the Italian Agency for Development Cooperation and carried out by the European University Institute (EUI)'s Migration Policy Centre (MPC). The study is part of the Food and Agriculture Organization of the United Nations (FAO) project GCP/INT/240/ITA “Youth Mobility, Food Security and Poverty Reduction: fostering rural diversification through enhanced youth employment and better labour mobility (RYM – Rural Youth Migration)”⁶. It examines youth rural migration in Tunisia, its determinants and its impact on food security and rural livelihoods in regions of origin.

This paper utilizes the results derived from both a qualitative research and a quantitative migration survey carried out within the RuMiT research study in the period October 2016-June 2017. Field research has been preceded by a comprehensive bibliographical review and a statistical mapping and analysis. As previously explained, since the implementation of the survey ended at the beginning of June, it has not been possible to include in this paper the final analysis of its results but only some preliminary findings. Therefore, in this paper we report the analysis of the findings from the qualitative study and some preliminary findings of the survey. Additionally, the tables with the survey's results have been before the cleaning of the database.

The qualitative research is based on a specific participatory tool called “Historical Livelihood Matrix” (Nori et al., 2009; DFID, 2009). Through this matrix, participants of a heterogeneous focus group are able to jointly discuss and analyze their current livelihood system as the result of historical dynamics. The research team has tailored this tool in order to allow assessing community perceptions on migration impact on local livelihoods. In particular, focus groups were asked to discuss the implications of migratory flows in terms of employment at household as well as community levels, the use of remittance, and the related impacts on agro-pastoral production in areas of origin. Focus groups' discussions were carried out between January and March 2017 in three migrants' origin areas in the North-West (Ain Drahem, Makhtar delegations) and in the South-West (Benit Kdech delegation), and in a migrants' destination area (Mèdenine Nord delegation) in Tunisia. The table below describes the characteristics of the surveyed rural communities of origin.

⁶ A description of the RuMiT study can be found at <http://www.migrationpolicycentre.eu/rumit-project-study-on-rural-migration-in-tunisia/>.

Table 1 – Characteristics of the surveyed rural communities

	Prevailing land tenure system	Prevailing farming systems	Migratory trajectories	Rate of external migration over the total population 2009-2014 (INS, 2015)
Makhtar Siliana Governorate	Small household/ individual plots, more than 50% with less than 5 Ha	Semi-arid climate Main cereal crops, small ruminants Potential for forestry and cultural tourism; locals report increasing interest for small ruminants & arboriculture (olives and cherry trees)	Towards Tunis since 1960s Female migrations since 1990s	8,5%
Ain Draham Jendouba Governorate	Public/ State lands (demaniales), community has access but not tenure, at times based on tenders Individual plots of very limited size (≤ 1 Ha)	Sub-humid climate Agro-Forestry activities in about 80% of the area, including small ruminants Other forestry potential in charcoal. Medicinal plants and wild fruits collections and interesting developments of dairy and apiculture schemes, potentials for eco-tourism	Towards Tunis since 1960s	6,5%
Béni Khédèche Médenine Governorate	Collective lands Individualisation and fragmentation of collective lands (plots btw 10 and 20 Ha)	Arid climate mountainous farming systems small ruminants, olive trees / arboriculture development of arboriculture (olives, fig trees), eco-tourism	Traditional migrations to the North and the Coastal Zone	1,8%

The total number of focus groups was 53 and participants were 638. In each delegation, a set of 9 thematic issues was approached with 2 different groups – one of mixed young people and the other with local adult population. The number of focus groups' members was between 5 to 15. The sample was balanced in terms of gender and age: women represented 34.16 percent of the sample while young participants (between 18-35 years old) 41.53 percent.

The fieldwork results were analysed through and compared with the FAO report (2017), which was itself mostly based on data from the 2004-05 Enquête sur les Structures des Exploitations Agricoles (MARH, 2006), thus before the 'revolutionary' events Tunisia has gone through in the last decade. The table below synthesizes the sessions and participants in each delegation.

Table 2-Qualitative Study's Sessions

	Sessions	Youth	Adults	Male	Female
Makhtar (Siliana)	12	64	120	142	42
Ain Draham (Jendouba)	12	55	73	92	36
Béni Khédèche (Médenine)	15	105	66	69	102
Médenine ville (Médenine)	14	41	114	117	38
Total	53	265	373	420	218

Regarding the quantitative migration survey, this took place between May and June 2017. 1208 interviews were conducted with the support of structured questionnaires. The survey targeted households in migrant sending rural areas in Tunisia (608) as well as migrants in destination areas in Tunisia (401) and in Italy (199). Migrant sending areas were selected on the basis of the urbanization and exit rates (Aid Drahim and Makther delegations in the North-West region and Bni Khdech delegation in the South-East. In each delegation households were randomly selected on the basis of the 2014 General Population and Housing Census. However, a quota system applied and households in these sending rural areas included: households with migrants moved before January 2011 (a maximum of 50%), households with migrants moved after January 2011 (a minimum of 40%), and households with no migrant as control-group (10%).

Instead, migrants in Tunisia were contacted through the snow-balling technique on the basis of the contacts given by households in migrant sending rural areas. This technique would allow reaching migrants in absence of a reliable database and comparing migrants' and origin households' points of view on migration's impact. In Tunisia, migrants were interviewed in the cities of Médenine and Tunis. For migrants in Italy the snow-balling technique did not work because household of origin were afraid to provide contacts. Therefore, migrants in Italy were contacted initially through surveyors' personal contacts as well diaspora and Islamic associations. The survey took place in the Centre-North of Italy in the Lombardia, Emilia-Romagna, and Tuscany regions. Cities were the following: Milan, Parma, Ferrara, Bologna, Galliera, Firenze, and Modena. the following tables describe the survey sample.

Table 3-Profile of sample from rural areas in Tunisia

		Sending rural areas Rural Areas (Tunisia) - Governorates			
		JENDOUBA	SELIANA	MEDENINE	Total
N. of Interviewed HHS	With migrants	180	182	182	544
	With no migrants	24	20	19	63
	Refused	0	0	1	1
	Total	204	202	202	608

Table 4 – Number of Migrants in Urban Areas in Tunisia and Italy

	Male		Female	
	Older migrants (until 2010)	Recent migrants (since 2011)	Older migrants (until 2010)	Recent migrants (since 2011)
Number	393	89	92	37
Percentage of the total	64.32%	14.57%	15.06%	6.06%

Table 5- Profile of Migrants Interviewed in Italy

Feature	Number	Percentage of the total
Migrants from rural areas of the survey in Tunisia (Siliana, Jendouba, Medenine)	39	19.59%
Male	139	69.84%
Female	60	30.15%
Recent migrants (since 2011)		22.61%
Older migrants (until 2010)	154	77.38%
Young migrants under 25/students	28	14.07%

6. Study Findings

Since the implementation of the survey ended at the beginning of June, it has not been possible to include in this paper the final analysis of its results but only some preliminary findings. Therefore, in this section we report the analysis of the findings from the qualitative study and some preliminary findings of the survey. However, the tables with the survey's results have been before the cleaning of the database.

6.1 Rural Migration Patterns

Findings from the qualitative study confirm that in Tunisia the migratory phenomenon is a household as well as an individual project. However, at times it also takes the form of a community and/or a generational one as migrants participate to the larger household economy and social community while also following his/her own personal project.

Since the late 1990s improved transport and telecommunication facilities have played an important role in modernizing local agricultural production and integrating rural livelihoods into market dynamics, in terms of acquiring inputs as well as selling outputs. This has reportedly been a major push for rural households to source financial resources elsewhere through temporary/seasonal income-generation opportunities, thus initially triggering temporary migration to agriculture neighbours characterised by intensification-potentials, in need of seasonal workforce. The need to complement and diversify the farm economy seems a main trigger behind this strategy – as in most cases the income generated through farming was too limited to support the household economy already in the 1970s (FAO, 2017).

Improvement of transport and communication infrastructure has opened remote areas to people exchanges and cultural and physical mobility. These have facilitated the emigration phenomenon, making temporary labour in neighbouring areas more accessible, and through time constituting a strategic asset to people mobility. While these income-generation activities were initially conceived as a complement to the farm economy, and mostly undertaken by the adult male (HH Head) – but in the south mostly by his sons), it has in fact represented a major factor that started disengaging the male rural workforce from its direct participation into family farming, while opening the way for their female counterpart to take over. This phenomenon forced the household strategy towards new trajectories, where adult males with temporary engagement outside the farm either turned back to local farming, or left altogether the community in search of stable off-farm income generation, triggering in turn emigration out of rural areas in more structural ways.

Family reunification schemes and the logistical support of those who had already emigrated (from the family/community) eventually provided an important pull factor for potential-migrants, not only in economic and operational terms, but also as a social as well as cultural trigger. In a number of cases that eventually led to international migratory trajectories, urban settings played a kind of intermediary step, a springboard.

When talking about financing the migratory process, the support of relatives and friends that had already emigrated and settled elsewhere is often reported as a primary source as from the Ben Ali period. Such support in destination areas (from relatives, but also friends) has come to replace in time that of the origin households, so that new migratory projects can be implemented without weighing on the household economy. In many cases moreover young migrants adapt to accommodate in the working place (ie. boys in construction sites, and girls in the houses they served or at relatives'/friends' one).

While Tunis was by large the primary destination during Bourghiba times, the coastal areas (named Sahel) have lately become relevant attraction poles in following periods, providing opportunities in the service (domestic and tourism works), industry, petty trading and construction sectors. These destinations have today lost much of its attraction, most likely as the textile as well as the tourism sectors have declined (ie. due to amongst other, commercial treaties and terrorist threats). Emigrating abroad represents thus today the most interesting option. The table below summarizes the migratory patterns affecting the targeted areas.

Table 6- Draft schemes of broad migratory patterns affecting the targeted areas

	1960-70s	1980-90s	2000s	Ongoing forecast /
Main areas targeted by rural migration	Agriculture neighbours, Tunis	Agriculture neighbors, Sahel	Agriculture neighbours, Abroad	
Opportunities within Tunisia	Urban and economic expansion	Important economic growth, especially along the coastal Sahel (industry and tourism)	Construction sector, textile industry, domestic work	Better exploit the potential of internal rural areas
Emigrating workforce	Adult males	Rural youth, mostly boys but rural girls started as well to move out in search of labour	Rural youth including girls	
Patterns	Mostly seasonal, temporary	Mix of definitive and seasonal patterns	Definitive, Settling and family reunification; seasonal migration for rural girls	Start sale of rural lands
Immigrating agricultural workforce		Men neighboring regions	Rural girls neighboring regions	(sub-Saharan) immigrants

The table above shows that migration patterns have shifted from temporary, seasonal migration to a structural one, whose income supplements rather than complementing the farming one. The explanation behind such initial short-term mobility are possibly dictated by two intertwined dynamics, a) the await for economic development opportunities that have not materialised in the area, and b) the decreasing viability of the farm economy to keep up with evolving consumption patterns.

Rural young girls represent the current and next flow of emigrants in many areas, though often with a more localized and temporary pattern than their male predecessors. The phenomenon of emigrating rural girls (including *préadolescents* in Ain Draham) is said to have started during Ben Ali times, and it has since been on the increase. Such migratory trajectories address mostly areas within the country, and often with a daily and/or seasonal profile when it comes to agricultural work, while it developed then

into more stable patterns (with seasonal periods back at home), if it involved textile factories in coastal regions or domestic work in urban centres. In the delegations targeted by the project, rural girls emigrate to undertake a) agricultural (neighbouring, often related to labour in the arboriculture sector), b) domestic (mostly Tunis), or c) (textile) manufacturing/industrial (mostly coastal cities) work in other regions, often on seasonal basis. The potentials from the tourism sector have also been mentioned.

6.2 Effects of Migration on Agricultural Production and Employment

Remittances

Overall, when thinking in more strategic terms, when it comes to the implications of the migratory phenomenon that has characterised the country in the last five/six decades, the impacts are diverse at different levels. It has to be recalled that the patterns and the pace of such dynamics change from a place/community to another, and affect differently the various members/groups.

Concerning remittances, only a small number of the survey's migrant respondents (corresponding to about 25% of the total) declared to have sent to their households of origin money or goods in the previous year.

Table 7-Remittances sent to origin households

		Older migrants (until 2010)- Male	Recent migrants (since 2011)- Male	Older migrants (until 2010)- Female	Recent migrants (since 2011)- Female	Total
Has the migrant sent money or goods to the origin household in the last year?	Yes	82	29	31	8	150 (25%)
	No	310	60	61	29	460 (75%)
	I do not know /No answer	1	0	0	0	1 (0%)

Results from the qualitative study indicate a change in use of remittances over time. When it comes to the economic returns to the rural community, in the past remittance was partly devoted to education as well as to invest in agriculture (which mostly included acquiring agricultural inputs, such as livestock, labour, and other inputs). Today these are mostly utilised for current expenses, with little saving and very limited investment. These dynamics seem to tell a story where transfer flows might have decreased, and/or investments in agriculture and in educations have lost attraction through time. At farm level in fact not only less remittance money seems proportionally devoted to agricultural investment, but even family workforce is little reinvested in farming labour, probably due to the overall limited viability of the farm enterprise as it stands.

Changes in the patterns and trends of utilisation of household finances indicate that remittance money have most often been devoted to improving living conditions (ie. consumption, housing but also education), investments through remittance have been decreasing (probably also as agricultural value has decreased within the household economy), whereas saving represents a priority item in present and

future concerns. Basic household needs have reportedly become again a priority domain for remittance transfer in many cases, indicating an overall impoverishment of rural livelihoods, together with the limited degree of saving and investment capacities. In a wider perspective this might indicate the limited contribution remittance has had on rural economic development. Another potential indication in this respect come from the fact that new migrants are mostly assisted by relatives and friends in the areas of destination, rather than in those at origin, which was the case like decades ago.

Agricultural land

The qualitative study highlights that the access to land represents an issue of concern throughout the areas, though with differences and nuances, due also to the fact that the prevailing tenure system differs from an area to another, and predominant systems influence community perception. Family heritage remains a main mean to acquire control of land in targeted rural areas.

While land remain a main social, and cultural reference for households, this is though changing and room for contractual engagements as well as a market for land seems to be developing in portions of the country. In turn such processes are strictly related to migratory dynamics, in that a growing number of plots get unutilised /abandoned by emigrating families, which eventually triggers forms of land hire, rental and even (recently) sale of land plots. This evolving marketing – though at a still limited pace – indicates that the material and non-material value of land is changing through time, and that urban-referred needs are growing on one side, while opportunities to get back to the rural areas seem increasingly remote form some (part of the) family/community.

Most smallholders just control and produce on their own plots. Forms of land rental might range from a) *metayage* (sharecropping), where land is hired against a portion of the forthcoming production (thus production risks are shared among contracting parts) and b) *fermage*, where land is rented in exchange for a fixed amount (and all production risks remain on the shoulders of the tenant). Both forms have developed through time, reportedly as the outflow of youth migration has increased (since the Ben Ali period) and the overall aging of the remaining household.

Métayage is by large the most applied form of contract (at least in northern areas), as production risks associated to climatic and market factors are considered too high be rest just on one's shoulders. *Fermage* is often associated to a further step into abandoning the rural setting, due to the aging of death of the household head, and the related inability of remaining household members to take over the farming enterprise (i.e. active workforce emigrated elsewhere). This represents in some respect a step further into land sale. Land marketing is predicted to grow in coming years. Compared with previous reports, it might be likely that marketing of rural lands has been on the increase in the post-revolutionary period.

A large and growing number of plots set abandoned, often as the owning family as emigrated out of the area. In northern areas land rental schemes has spread accordingly as a strategy to tackle land abandonment. The out-migrating family remains often associated to the land, for socio-cultural reasons, and rental arrangements are thus sought with neighbouring households. These patterns are though apparently changing in recent times, as the market for land sale and acquire seems to develop; out-migrating families are reportedly more prone to sell their land in the origin rural community, often with a view to invest in housing and construction in their areas of destination. This eventually provides a further, definitive detachment to rural areas of emigrating families. The sale of rural land is a phenomenon predicted to grow in coming years. This social innovation provides opportunities and threats to local rural development as it could enhance social stratification, while enhancing though land consolidation and agricultural performances. These evolutions will have relevant consequences that

should be accounted for, in that land is often the main asset on which employment and financing depend.

The viability of pastoral farms is in turn affected by and triggers the limited interest of local youth vis-à-vis the shepherding work (which is critical to maintain these systems effective). Limitation in the shepherding workforce is reportedly a constraining factor for these systems. In some areas immigrant workers have come to play a role in this sector (not in the project areas, though). Together with land, livestock flocks represent a financial as well as a socio-political asset.

Everywhere though the decreasing size and the fragmentation of land holdings is reported as a main factor behind the limited and decreasing productivity and rentability of farming enterprises. The land inheritance mechanism divide in fact the family plots amongst male descendants. This pushes on one side portions of the descendants to emigrate, in order to leave the remaining ones with plots suitable for agriculture production. Farmers' enhanced control over a reducing resource seem to provide for a decreasingly economically viable enterprise.

On the contrary, the survey's preliminary findings show a small difference between migrants that own a property in their place of origin and those that do not. Even when the figures are broken down by gender or by recent/older migrants not relevant differences appear.

Table 8-Migrants with properties in the place of origin

		Older migrants (until 2010)- Male	Recent migrants (since 2011)- Male	Older migrants (until 2010)- Female	Recent migrants (since 2011)- Female	Total
Does the migrant own any property in the place of origin?	Yes	206 (34%)	43 (7%)	52(9%)	22 (4%)	323 (53%)
	No	187 (31%)	46 (8%)	39 (6%)	15 (2%)	287 (47%)
	I do not know /No answer	0(0%)	0%	1 (0%)	0%	1 (0%)

Agricultural labour

Agriculture restructuring has also brought important changes in farm labour access and allocation. Seasonal demand for agricultural labour is one of the main forces that has induced primary mobility patterns, even though at local scale and temporary time frames. Almost everywhere a decrease in local agricultural workforce is reported, with women – and to an extent foreign workers⁷, though at limited degrees and not specifically in the project areas - replacing more traditional male labour, and filling the gap left by emigrating local men.

Labour allocation patterns have though changed through time even within (medium to) smallholder farming households. Emigration of adult men, engagement of younger males in other livelihood systems, and more strict schooling of younger members have generated a labour shortage at household level,

⁷ It has to be recalled that a number of sub-Saharan workers active in Libya had to relocate themselves following the socio-political tensions associated to the conflict.

and has pushed rural women as primary source of farm labour. Today rural women are said to largely replace the departed young male workforce, first through the work of adult women (wives, mothers), and then with the integration of girls (sisters, daughters) in the farming system. Eventually rural girls have become farm workers even outside the family farm, through seasonal migratory patterns in agricultural neighbours.

In the past the sourcing of workforce outside family circles is traditionally a prerogative of large farms, as agricultural workers/rural inhabitants issued by nearby communities were recruited on temporary activities. This phenomenon eventually was a main trigger in starting people mobility in the country, through relocating adult men from neighbouring regions to areas of intense demand. Today the salaried workforce has changed, in that a) mechanisation has enabled replacing parts of the workforce in large, intensive farms, b) existing workforce in agriculture seems today mostly composed by rural girls c) or even and increasing by immigrants coming from sub-Saharan countries. Moreover today, in the post-revolutionary setting (relative, temporary and limited) employment of non-family agricultural workforce is reported as well amongst (medium to) smallholders.

The recruitment of female agricultural workforce is quite recent, at least in the project areas, with rural women mostly employed in activities related to arboriculture, where women are said to perform better and to give as well less trouble. Rural girls are mobilised through intermediaries that manage the communication and transportation networks, such networks raise several concerns.

Overall rural youth has increasingly grown its decision-making power, and the rural household has undergone a 'feminization', with rural adult and young women playing today a most relevant role, compared (or just more visible) to what used to be before⁸.

A main reason behind such process is that the household head has been in most cases the first to move out from the household, initially on temporary basis as a way to complement the farm economy. He then moved further towards Tunis, often driven by trade or opportunities to work in the construction sector opportunities. Eventually they have been followed / replaced by the younger generation – adult male sons. But short-term and short-scale mobility have also been driven by agricultural intensification in neighbouring rural areas. Seasonal agriculture workforce migration has represented an important mobility pattern, which is now still undertaken to an extent by rural girls.

As a result of the dislocation of household head rural wives/mothers are said to have all over gradually become the primary source of farm labour – and often even in parts of the related decision-taking over farming strategies. Adult women together with the support of younger family members continue playing as well as relevant role in secondary and often overlooked farming activities, such as small stock and gardening, which has all relevant implications in the food security aspects of the household. In this respect ongoing patterns of family reunification holds relevant significance in local development as emigrating adult women often represent an important source of farm labour – and their eventual departure affects importantly in the farm production system.

As the table below indicates, the preliminary results of the survey show that a large majority of migrants do not have the intention to come back to their place of origin in the near future (70.38% of the total).

⁸ The increased and growing presence of women in the Tunisian formal economy is a process that relate to all sector, though with different rates and degrees. Please see FAO, (2017:11) : « D'après les recensements de la population de l'Institut National des Statistiques (INS), *l'emploi agricole féminin serait passé de 13,56 pour cent de l'ensemble de l'emploi agricole en 1975 à 20,1 pour cent en 1985, 29 pour cent en 2005 et 36 pour cent en 2012.* »

Table 9 – Migrants’ intention to return to their place of origin

		Older migrants (until 2010)-Male	Recent migrants (since 2011)-Male	Older migrants (until 2010)-Female	Recent migrants (since 2011)-Female	Total	Total (Percentage over the total)
Does the migrant want to come back to his/her place of origin ?	Yes	100	29	22	13	164	26.84%
	No	222	36	54	22	334	54.66%
	Yes but in the distant future	62	19	13	2	96	15.71%
	I do not know/No answer	9	5	3	0	17	2.78%

7. Conclusions

Migratory patterns of Tunisian rural populations are defined, triggered and driven by several variables, such as income, employment, destination, sector, age, generation, households’ membership, existing networks, socio-cultural perceptions. Patterns seem defined by cyclical flows which are often parallel and complementary: a) parts of the family remain inhabiting and attached to the rural world, b) while other portions/members move elsewhere, initially through dislocated agricultural labour, and then moving to other sectors. Initial local, temporary and seasonal patterns have eventually developed into extended patterns in timing (longer term settlement) as well as spatial (towards coastal, urban areas or even abroad), contributing to driving away other members from internal rural communities, by supporting rural migratory projects to join destination areas.

Family reunification has become and remains a major trigger for migratory processes, but outflows of next generations of rural youth are taking place as well. The intensity of out-migrating rural girls attests to a structural dislocation of family structures, and to the fact that migratory project remains a viable and pursued strategy for rural households. As from the survey, current migrations seem most supported by relatives/friends in destination areas, rather than by those in origin ones.

Initial emigration of household head meant that main household workforce had to be devoted elsewhere; this also implied important restructuring in the knowledge-base as well as in the decision-making within the farming system. As a result of the dislocation of household head rural wives/mothers are said to have all over gradually become the primary source of farm labour. Rural youth emigration has further drained off skilled, strong and potentially-innovative people, which eventually contributed to an imagery where rural was synonymous of non-modern, and the future was to be sought elsewhere. The migratory projects of rural girls for work-related purposes represent but another step in such patterns, indicating that important assets for the reproduction of the rural society are altogether dislocated. In return, investment of remittance funds into agriculture has reduced through time, for a number of reasons.

Such workforce loss and the related restructuring of the farm household have problematized local agricultural performance and development, reducing opportunities for improved, diversified, of innovative farming systems. The magnitude and intensity of these phenomena are forecasted to grow, and should thus represent issues of relevant concern as to the generational renewal in agriculture and the sustainable development of rural areas.

Overall the impact of emigration has reportedly carried mostly negative implications for the rural/origin area/community, in that economic as well as demographic trends have worsened, in quantitative as well as qualitative terms. Rural migration together with problems related to land issues, rural population decline, the ageing of farmers, and a limited interest from rural youth, leads to a problem related to generational renewal, which represent a key challenge not only for Tunisian countryside, but for the whole Tunisian society, and the North African region more in general.

The support of migration to the agro-pastoral production is limited in monetary terms. Only a limited percentage of migrant respondents declared to have sent to their households of origin money or goods in the previous year. Meanwhile basic household needs have reportedly become again a priority domain for remittance transfer in many cases, indicating an overall impoverishment of rural livelihoods, together with the limited degree of saving and investment capacities. However, more than half of interviewed migrants reported to own a property in the place of origin.

The construction sector represents a main domain of local investment (the qualitative study indicates most household turn their remittance and savings into housing), as well as main domain providing for employment (as to the availability of quite cheap construction workforce due to the lack of work alternatives in the country).

Concerning the migration's effects on land tenure, while land remain a main social, and cultural reference for households, this is though changing and room for contractual engagements as well as a market for land seems to be developing in portions of the country. In turn such processes are strictly related to migratory dynamics, in that a growing number of plots get unutilised /abandoned by emigrating families, which eventually triggers forms of land hire, rental and even (recently) sale of land plots.

The evolutions of the agricultural land contracts and marketing in certain areas is another indicator of such process, in that the rural land has lost part of its ancestral value and is being commoditised to an increasing extent –though still limited - also as a way to finance proper installation in urban areas of emigrated households, following reunification. Though at a slow pace, the material and non-material values of rural lands are changing, and this holds several implications when it comes to agricultural production and related dynamics and potential policy and investment potentials.

References

Ayadi, M., Boulila, G., Lahouel, M., & Montigny, P. (2004). Pro-poor growth in Tunisia. International Development & Strategies, France, 84

Amara M. and Jemmali H. (2016), *Deciphering the relationship between internal Migration and inequality in Tunisia*, Working Paper 1043, September 2016, Econ9omic Research Forum

Bardak U., (2014), *Labour Market and Education: Youth and Unemployment in the Spotlight*, in IEMed Mediterranean Yearbook 2014, p. 78-84

Bakewell O. (2009), *South-south migration and human development: Reflections on African experiences*

- Belhedi A., (2001), *Les facteurs socio-économiques de la migration, Population et développement en Tunisie*, La métamorphose, Ceres Editions, 2001, 801p cf. Chapitre 8, : 233-254
- Bilgili, O. and Marchand, K. (2016), Migration, development and climate change in North Africa, Thematic input paper prepared for the Thematic Regional Meeting of the Swiss Agency for Development and Cooperation on 'Climate Change, Disaster Risk, Migration and Economic Development', Agadir, May 2016.
- Boubakri, H., (2002), Les effets des réseaux migratoires transnationaux sur l'économie locale et régionale à Tataouine (sud-est tunisien) in Cesari, J., (2002), *Sous la direction : La Méditerranée des réseaux*, Maison Méditerranéenne des Sciences de l'Homme, Éditions Maisonneuve & La Rose
- Boubakri, H., (2010), *Tunisie : Migration, marche du travail et développement*, Document de travail, Project de Recherche : Faire de migrations un facteur de développement, Une étude sur l'Afrique du Nord et l'Afrique de l'Ouest
- Boubakri H. (2014), *Les investissements des migrants tunisiens à l'étranger : au-delà des chiffres, les vrais effets sur les territoires*, in Daviet S. (dir): *Vers un entrepreneuriat transméditerranéen ? Les stratégies d'internationalisation des entreprises maghrébines et de réinvestissement des Maghrébins d'Europe*, Editions : IRMC-Karthala
- Boughzala M. and Hamdi T. M. (2014), *Promoting inclusive growth in arab countries rural and regional development and inequality in Tunisia*, Global Economy & Development, Working Paper 71 | February 2014, Brookings
- Charrad, M. M. and Goeken A., (2006), Continuity or change: family law and family structure in Tunisia, *African Families at the Turn of the Twenty-First Century* Kriaa, 2013
- Churchill E., (2013), *Youth work in Tunisia after the revolution*, EUROMED
- CIHEAM (2008), *Mediterra, The future of agriculture and food in Mediterranean countries*, Paris: Presses de Sciences Politiques.
- CIHEAM (2014), *Mediterra, Logistics and Agro-food Trade, A challenge for the Mediterranean*, A CIHEAM Report, Paris: Presses de Sciences-Politiques
- Cingolani P. (2009). *Romeni d'Italia: migrazioni, vita quotidiana e legami transnazionali*. Il Mulino, Bologna
- David, A., and Marouani, M. A. (2017). *Migration patterns and labor market outcomes in Tunisia* (No. DT/2017/03).
- De Haas H. (2001), *Migration and agricultural transformations in the oases of Morocco and Tunisia*, Utrecht: KNAG
- De Haas H. (2005), *International Migration, Remittances and Development: Myths and Fact*, Global Migration Perspectives, n. 30, Centre for International Development Issues, Radboud University, Nijmegen, The Netherlands
- De Haas H. (2007), *Remittances, Migration and Social Development: A Conceptual Review of the Literature*, Social Policy and Development Programme Paper, n.34, United Nations Research Institute for Social Development
- De Haas H. (2008), *Migration and Development: A Theoretical Perspective*, IMI

Deotti L. and Estruch E. (2016), *Addressing rural youth migration at its root causes: A conceptual framework*, Social Policies and Rural Institutions Division, FAO, March 2016

DFID (1999), *Sustainable Livelihoods Guidance Sheets*, April 1999

Dos Santos, M. D., and Postel-Vinay, F., (2003), *Migration as a source of growth: The perspective of a developing country*, *Journal of Population Economics*, 16(1), 161–175

Drissi M. (2014), *Tunisia: Breaking the Barriers to Youth Inclusion*, World Bank

European Commission (2007), *Circular migration and mobility partnerships*, COM (2007) 248 final

Faist T., (2010), Transnationalization in international migration: Implications for the study of citizenship and culture, *Ethnic and Racial Studies*, 23(2), 189–222

FAO, (2017). Etude sur l'agriculture familiale a petite échelle au proche orient et afrique du nord. Tunisie.

Frankenberger T. R. (2000), *A brief overview of sustainable livelihoods approaches*, in *Proceeding from the Forum on Operationalizing Sustainable Livelihoods Approaches*, Proceedings, FAO

Freguin-Gresh S. et al. (2014), *Les Systèmes Familiaux Multi-localisés: un modèle d'analyse original des ruralités aux Suds*, Montpellier, UMR ART-Dev., Document de travail ART-Dev (2014)

Gafrej R., (2016), Avec le changement climatique, quel avenir de l'agriculture en Tunisie?, Watch Letter n°37, September 2016, CIHEAM

Guétat-Bernard H. (2007), *Développement, mobilités spatiales, rapports de genre : une lecture des dynamiques des ruralités contemporaines (Inde du sud, Ouest Cameroun, Amazonie brésilienne)*, Habilitation à diriger des recherches, Université Toulouse 2-Le Mirail, cited in Freguin-Gresh S. et al.(2014)

Glytsos N.P., (1997), Remitting behaviour of “temporary” and “permanent” migrants: The case of Greeks in Germany and Australia, *Labour* 11.3 (1997): 409-435.

Holmes-Eber, P., (1997), *Migration, urbanization, and women's kin networks in Tunis*. *Journal of Comparative Family Studies*, 54-72 cited in Charrad, M., 2006

INS, (2015), *Recensement Général de la Population et de l'Habitat 2014, Principaux indicateurs*, April 2015

INS (2016), *Statistiques Tunisie, Flash Migration, N° 3*, Novembre 2016

Johnson, K. M., and Glenn V. Fuguitt, (2000), Continuity and change in rural migration patterns, 1950–1995, *Rural Sociology* 65.1 (2000): 27-49

Kriaa, M. (2013), *Etude de l'impact de la migration sur les familles de migrants présentes au pays*, UNFPA, UNICEF, IOM, OTE, Statistiques Tunisie and Confédération Suisse

Lamine, R., (2008), Croissance démographique et dynamiques migratoires récentes des grandes villes tunisiennes, en *Mobilités résidentielles, pratiques de mobilités et constructions territoriales en périphérie, Exemples au Maghreb*. Les Cahiers d' EMAM, numéro 16, 2008.

Levitt, P., (1998), Social Remittances: Migration Driven Local-Level Forms of Cultural Diffusion, *The International Migration Review*, 32, no. 4: 926-948

Losch B., (2016), *Structural transformation to boost youth labour demand in sub-Saharan Africa: The role of agriculture, rural areas and territorial development*, Employment Policy Department, Employment Working Paper No. 204, ILO

- Mbah, E. N., et al., (2016), *Effects of rural-urban youth migration on farm families in Benue state, Nigeria*, *International Journal of Agricultural Research, Innovation and Technology* 6.1 (2016): 14-20.
- MARH, 2006. Enquête sur les Structures des Exploitations Agricoles 2004-2005. Ministère de l'Agriculture et des Ressources Hydrauliques Direction Générale des Etudes et du Développement Agricole, Tunis : <http://www.onagri.nat.tn/uploads/divers/enquetes-structures/index.htm>
- Nori M., El Mourid, M., Giorgi, P., & Nefzaoui, A. (2009), *Herding in a Shifting Mediterranean Changing agro-pastoral livelihoods in the Mashreq and Maghreb region*, EUI Working Papers- RSCAS 2009/52, Robert Schuman Centre for Advanced Studies, San Domenico di Fiesole (FI): European University Institute
- OCDE, (2012), *Connecting with Emigrants. A Global Profile of Diasporas*, Paris
- ONEQ (2014), *Transition vers le marché du travail des jeunes femmes et hommes en Tunisie*, Organisation internationale du Travail, Genève
- Ouertani E., (2016), *Food Security in Tunisia Within Water Scarcity, The Relative Importance of the Meat Sector*, *International Journal of Food and Agricultural Economics*
- Qin H., (2010), *Rural-to-urban labor migration, household livelihoods, and the rural environment in Chongqing Municipality, Southwest China*, *Human Ecology* 38.5 (2010): 675-690
- Saad A. B. et Bourbouze A. (2010), *Les nouveaux visages du pastoralisme " moderne" du grand sud tunisien*, Lerin F. (ed.), *Pastoralisme méditerranéen : patrimoine culturel et paysager et développement durable*, Montpellier : CIHEAM / AVECC / UNESCO
- Sen A., (1999), *Development as Freedom*, Anchor Books, New York
- Sourisseau J.-M., et al., (2012), *Les modèles familiaux de production agricole en question. Comprendre leur diversité et leur fonctionnement*, *Autrepart*, 62, 159-181.
- Tegegne, A. D., and Penker M., (2016), *Determinants of rural out-migration in Ethiopia: Who stays and who goes?*, *Demographic Research* 35 (2016): 1011
- World Bank (2014), *Tunisia's Data*: <http://www.worldbank.org/en/country/tunisia>
- World Bank, (2014a), *The Unfinished Revolution: Bringing opportunity, Good Jobs and Greater Wealth to all Tunisians*, *Development Policy Review*