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Rural Out Migration and Land Use in Moldova

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ABOUT THE PAPER

Policy Research Reports are occasional studies that provide support or background information for wider research projects. They include reviews of scientific literature, state of the art reports, and country studies. They are works in progress and offer practical combinations of academic and policy writing.

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RURAL OUT MIGRATION AND LAND USE IN MOLDOVA

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ABSTRACT

Moldova has seen large flows of its citizens residing in rural areas migrating abroad in search of higher wages and decent living conditions. This paper aims to investigate whether additional income from remittances enable migrant households to invest more in their agricultural land, increase their farm efficiency and the labor resources they allocate to agriculture in general. Furthermore, it aims to assess whether remittances lead to productive investments in agriculture, particularly if there is any impact on the land consolidation, considering the substantial drop in the economic activity rate in rural areas as less and less land is being cultivated by peasant farms. This study found that rural out migration and depopulation has changed the structure of the agricultural production with more agricultural areas being allocated to crops that require minimum resources. Migration accelerated the decline of the agricultural sector as migrants and their family members reduce the amount of land cultivated and invest less in new agricultural equipment or in productivity-enhancing technologies; instead, they are using remittances to move out of agriculture by leasing parts of their land, though retaining their ownership rights. Considering current land consolidation initiatives undertaken by the state, the author advocates a careful and weighted approach considering the experience of the neighboring countries which aimed to tackle high land fragmentation, ageing, and migration in rural areas.

CONTENTS

Table of Figures	4
Tables	4
Acronyms	5
1. Research Issues and Methodology	6
2. Literature Review	9
2.1. Theories on the Impact of Remittances on Rural Areas	9
2.1.1. The Impact of Migration on Farming Activity	10
2.1.2. Labour Participation in Agricultural Works	11
2.1.3. Rural Out Migration Effect on Crop Production and Livestock	12
2.1.4. Impact on Farm's Technical Efficiency	12
2.1.5. Effect of Farm and Household Income	13
3. Agriculture and Rural Migration in Moldova	13
4. Rural Out Migration	18
5. Results	20
5.1. Migration Trends	20
5.2. Land Use	25
5.3. Agricultural Life annuity Scheme	27
5.4. Agricultural Life Annuity Scheme in Hungary and Romania. A Comparative Perspective	29
5.4.1. Hungary	29
5.4.2. Romania	30
6. Conclusion and Recommendations	35
Appendix	38
References	39

TABLE OF FIGURES

Figure 1: Share of Agriculture and Industry in GDP	19
Figure 2: Number of agricultural land sales transactions	20
Figure 3: Rented agricultural land	22
Figure 4: How many of your household members work in agriculture?	25
Figure 5: Does your household own any of the following?	25
Figure 6: In which sector of the economy is the head of the household employed?	26
Figure 7: Where do you keep your savings?	27
Figure 8: Main destinations of rural migrants	28
Figure 9: Why did the members of your household migrate?	28
Figure 10: If the person comes back, do you think he/she will reside in the same village/town or move somewhere else in Moldova?	29
Figure 11: Have your household bought, donated, sold, rented, or donated land in the last year?	30
Figure 12: For how long did you conclude the land lease agreement term?	30
Figure 13: Why did your household rent/lease land?	31
Figure 14: Main holders by age and size of the agricultural area in Romania (2005)	36
Figure 15: Number of citizens aged over 65 years old who own and farm agricultural land (2007)	37
Figure 16: Individual households by degree of fragmentation (2004)	38

TABLES

Table 1: Disposable income of rural households, 2007-2010	16
Table 2: Average salary by sector of the economy, in Euro	18
Table 3: Employment by economic sectors, as % of the total employment	22
Table 4: Distribution of migrants by economic activity prior to migration and in the destination countries, 2007	23
Table 5: The structure of the landowners' agricultural areas in Moldova, 2010	32

ACRONYMS

ASD - Agency of State Domains

ESU - European Size Unit

FSS - Farm Structure Survey

GAC - General Agricultural Census

HBS - Household Budget Survey

ALAS - Agricultural Life Annuity Scheme

LLCs - Limited Liability Companies

MARD - Ministry of Agriculture and Rural Development

MDL - Moldovan Leu

NBR - National Bank of Romania

NOALA - National Office of Agricultural Life Annuity

NMS - New Member States

RDP - Rural Development Programme

SEDPR - Strategy for Economic Development and Poverty Reduction

UAA - Utilized Agricultural Area

1. Research Issues and Methodology

This paper aims to investigate whether additional income from remittances enable migrant households to invest more in their agricultural land, increase their farm efficiency and the labour resources they allocate to agriculture in general.

Background

Over more than 1 million of Moldovan citizens became landholders after a protracted land reform initiated in 1991. The reform which was based on equal privatization, unlike other fSU states, aimed mainly to privatize land and collective agricultural enterprises that belonged previously to the state, by providing legal documents confirming the ownership rights of the landholders. Current landholders own holdings of 2.4 hectares on average, where only nine percent of the households own plots of more than 5 hectares. The agricultural land is mainly distributed between 1,292 of limited liability companies (LLCs) that work 41.2 percent of total private land and 378,070 of peasant farms¹ that work about 40.1 percent (Botnarenco 2006). According to the area owned by each peasant farm there are only 0.3 percent of these who own between 5-10 hectares, 10 percent who own over 10 hectares and 88 percent who own agricultural land up to 5 hectares, which reveals the high level of land fragmentation. It is important to note that the number and area of the peasant farms decreased significantly over the last 10 years while the number of kitchen plots² and land owned by LLCs and agricultural production cooperatives increased³. For instance, the number of peasant farms decreased from 32.8 percent in 2003 to 30.2 percent in 2007 while the average size of agricultural land smaller than 10 hectares owned by these farms also shrunk by 10 percent in favour of bigger plots over 50 hectares which also increased slightly from 26.7 percent to 27 percent (National Bureau of Statistics, NBS Moldova). These figures point clearly to a land consolidation trend since more peasant farms choose to lease their land than work it themselves⁴. At the same time, the share of rural population employed in agricultural sector decreased by 15.3 percent since 1999, which is also reflected in a substantial drop in the economic activity rate⁵ in rural areas from 62,6 percent in 1999 to 43,7 percent in 2006 (Centre for Economic and Social Sciences, CASE Survey 2009). These data point to the fact that less land is being cultivated by peasant farms since this share decreased significantly over the last years⁶.

Decreasing number of peasants farms and the share of land worked by these, declining rates of the economic activity and participation in agricultural activities in rural areas coincide with considerable flows of rural emigrants with 68,9 percent of all emigrants coming from rural areas which represent 40 percent of the total active labour force in these regions (NBS Moldova 2009). The figures above point to the fact there is an obvious reduction in the amount of land cultivated by peasant farms while there is an increase in the number of kitchen plots whose agricultural output is usually used for the household's consumption. The changing structure of the land use in the context of rising trends of rural out migration is interesting to be explored since according to the last Moldovan Labour Force Survey

1 Peasant farms ("Micii producatori agricoli") are the category of producers who own personal auxiliary households or kitchen plots, and agricultural land up to 10 hectares (NBS Moldova).

2 "Gospodării anexe auxiliare/loturi pe lângă casă și grădini" (NBS terminology for kitchen plots)

3 The amount land owned by LLCs and agricultural production cooperatives increased from 35, 2% in 2003 to 37,4% in 2007 (NBS Moldova).

4 54% of peasant farms lease their land while 46% choose to work it by themselves, Centre for Economic and Social Research, CASE.

5 Adult economic activity rate refers to the percentage of the population aged 15 and over, unless otherwise specified, which is economically active (UNSD).

6 The size of the peasant farms decreased from 743, 5 thousands hectares in 2003 to 678, 9 thousands hectares in 2007.

the rural out migration increased significantly for the last 6 years surpassing urban out migration both in number of those who migrated and in the number of “new migrants”⁷ by 4-6 percent. It is also important to note that 13 percent of the rural migrants are not planning to come back in their original villages but they are considering moving to the capital or some other urban areas (CASE Survey 2009). The figures described above enforce the argument that migration, though not exclusively, plays a significant role in the decision making of the rural migrants to invest, lease or sell their land, moreover the investment behaviour and types of investments in rural areas should give an insight into the likelihood of rural migrants to return to their origin places since different types of migrants might have a significant influence over later agricultural investment decisions.

The Aim of the Research

The study is structured in two parts. The first part will investigate the impact of migration on land use in rural areas through comparison of non-migrants and migrant households’ propensity to invest⁸. Particularly, it shall explore the regions which are particularly affected by migration in terms of population change in the context of land use, and the differences between migrants and non-migrants households, and the way remittances are invested in the agricultural sector, such as buying land, machinery, seeds, fertilizers, etc., and second whether migration can be said to have an influence over the efficient allocation of land via consolidation to owners who are technically better equipped to farm the released land in larger plots. For instance, the possibility to legitimately pass these plots to more efficient users by either sale or lease and analyse the amount of land left uncultivated. For instance in Albania, around half of land rented in is from people living abroad specifically 47 percent of individuals, and 55 percent of plots, although 33 percent of these rental agreements are concluded with relatives (Germeñi and Swinnen 2004 cited in World Bank 2006, p. 103).

According to existing data, the most migration-affected regions are located in the northern part of the country, in rayons such as Drochia, Glodeni, Anenii Noi, and Floresti, but also in the southern part of the country, in the Gagaus –Yeri region in particular. The research will study whether their investment choices in agriculture depend on the amount of the remittances sent, type of migration (long term or short term), previous agricultural activities, daily need expenditures by region, or on their willingness to return or not home.

As an impact study, it will also look at the effect of remittances on land use; and particularly whether remittances contribute to the development of the agricultural sector or if they act as an incentive to move out of agriculture by leasing or selling the land to corporate farms. Moreover, it aims to investigate whether migrant households invest in capital intensive technologies to compensate for the labour loss on-farm activities. While some studies on Albania (McCarthy et al. 2006) document a drop in the quantity of agricultural labour effort they also prove that migration has an impact on land use, thus transfer of land to less labour-intensive production systems, ultimately resulting in greater agricultural and total household income. Since more peasant farms in Moldova decide to lease their land, it would be important to see if these corporate farms are in the position to absorb this land.

The second part of the study will focus on select countries that experienced significant out rural migration and the means they employed to address land use. The study will look specifically at policy programs implemented by these countries to deal with large flows of rural migrants and age structure of left landowners. Thus, this part aims to be a comparative analysis of the data gathered from rural areas in Moldova with available evidence and finally provide potential policy recommendations.

7 Citizens who decide to migrate for the first time.

8 “The key point of analysis should not be the consumption and investment behaviour of migrants, but rather the behaviour of migrants in comparison with non-migrants.” (Gilani et al. 1981 cited in Adams 1991, p. 53)

The research puts forward the following hypotheses for analysis:

Hypothesis 1: *Migration accelerates the decline of the agricultural sector⁹ as migrants and their members reduce the amount of land cultivated and invest less in new agricultural equipment or in productivity-enhancing technologies; instead, they are using remittances to move out of agriculture to non-farming activities.*

Hypothesis 2: *Rural migrants involved in long-term international migration (which is usually the case for Moldovan workers due to legalization hardships in destination countries) are less able to return home and engage in agricultural activities and therefore they might be more prone to lease or sell their land. Alternatively, the relationship between migration and agricultural development is more likely to be negative where migration is informal or illegal.*

Hypothesis 3: *Rural migrants invest their remittances in land acquisitions particularly in regions which are likely to have higher rates of return especially for either selling or renting.*

Research Methodology

Data for the study was compiled through a household survey implemented by the Centre for Sociological Investigations and Marketing “CBS AXA” which was conducted in October 2010, in 4 rayons of Republic of Moldova: Drochia, Singerei, Anenii-Noi, Straseni, in the villages of Scoreni, Iezerenii Vechi, Botnaresti, and Petreni and surveyed 102 rural households. Although, the results for this study don’t aim to be representative for the whole rural areas in Moldova and should be treated cautiously they shall offer an insight about the effects of the rural migration on specific rural areas and households in Moldova. The questionnaire surveyed migrant and non-migrant households and their family members on the northern part of the country and in two central rayons.

Secondary data was collected from household surveys conducted by CBX AXA for International Organization of Migration and Centre for Social and Economic Research on rural areas in October 2008 and a general survey on remittances conducted in 2005, “Migration and Remittances in Moldova 2005.” The present study will also focus and explore available literature on Moldovan out rural migration and its impact on rural development, compiled by national government and international organizations (e.g. International Organization for Migration (IOM), International Labour Organization (ILO), World Bank (WB), United Nations Development Program (UNDP), Food and Agriculture Organization (FAO)).

Contribution of the study

Although rural out migration has an important impact on the development of rural areas, regional empirical evidence on this issue regarding Moldova is scarce. The study aims to explore and establish the link between the impact of migration on rural development and specifically on land use and propose recommendations and scenarios based on other countries. Findings emerging from this study will be used to draw conclusions, and draft recommendations about region specific strategies, and interventions that can assist rural migrants in their decisions regarding land use, as well as state and non-state organisations involved in rural development policy.

The study aims to contribute to the existing literature on migration and its impact on rural development in Moldova and complement the findings of the IOM and FAO missions in Moldova and other organization that activate in the field of migration.

9 Agricultural sector understood as a means of growing your own food for your own consumption.

2. Literature Review

For the purpose of this study, the existing literature will be reviewed to analyse the effects of remittances on rural development, particularly exploring the impact of remittances on land use, labour participation in agricultural works, crop and livestock production, farm technical efficiency, and impacts on farm and household income.

2.1. Theories on the Impact of Remittances on Rural Areas

For approximately 70 percent of the world's rural poor, agriculture is the main source of income. In areas where rural poverty is high, migration is often the only alternative for a better income. However, this does not mean that migrants cut all their ties with their villages. Numerous countries see more than 50 percent of their remittances transferred to rural areas such as Albania, Romania, and Moldova, to name just a few (IFAD 2008, 22). In this respect, the relationship between migration and rural development should not be seen just in terms of loss of labour, capital and care. Remittances sent back might lead to productive investment in agriculture and rural development and in this sense, can play a significant role in alleviating poverty and increasing the wellbeing of those dwelling in rural areas (IFAD 2008, 22). Conversely, lack of access to fundamental assets, such as land, financial services, adequate infrastructure, and other productive services hinder rural dwellers from capitalizing on their agricultural activities, which consequently obstructs rural development as a whole (IFAD 2008).

Moldova remains one of the top remittance-receiving countries in terms of remittances as percentage of GDP, followed or at times surpassed by countries such as Tonga, Lesotho, and Guyana. Migrant remittances are considered the sum of workers' remittances, compensation of employees, and migrants' transfers (Migration and Development Brief, World Bank 2009, 8 cited in World Bank 2003). The aim of the present research is to assess whether remittances lead to productive investments in agriculture in rural Moldova and, in particular, if there is any impact on the way in which rural land is used, for instance leading to a more efficient allocation of land resources among rural dwellers.

Productive investments are characterized as those investments in agricultural or non-agricultural sector that would ultimately lead to an enhanced income of that respective household. These can include purchases of agricultural capital goods and commercial agricultural investments that bring about improvements in the land productivity while consumptive investments are those that directly improve the quality of life for family members of the household (de Brauw and Rozelle 2003, 6).

A broad body of research debates the remittances-development nexus, and although extensive, the empirical evidence is inconclusive in terms of the palpable effects of remittance transfers on welfare and specifically on productive investment in the farming sector. For the purpose of this study, the existing literature will be reviewed to analyse the effects of remittances on rural development, particularly exploring the impact of remittances on land use, labour participation in agricultural works, crop and livestock production, farm technical efficiency, and impacts on farm and household income.

Most of the studies conducted on the effect of remittances on rural areas attest a strong impact on household consumption, while the effect on productive investments is rather weak, although the relationship differs from country to country. Mines and de Janvry (1982 cited in Mendola 2006) have studied the investments made by rural Mexican migrants and found out that they do not invest in productive activities in their places of origin but rather view the village as a place to rest and raise children. Taylor et al (1996 cited in Durand et al 1996, 250) depicts a rather pessimistic scenario of rural migration and investment in Mexico, mentioning "a shortage of arable land, a small and poorly educated work force, poor transportation and communications, and limited access to regional markets simultaneously [author's emphasis] generate high rates of out-migration and low rates of investment."

Conversely, Dustmann and Kirchkamp (2001 cited in Mendola 2006, 6) based on a study conducted on Turkish migrants' investment propensity, find that they are more likely to engage in entrepreneurial activities back home, using their earnings gained in Germany. Adams (1991, 75) finds that in rural Egypt remittances are invested in land acquisitions where the economic rates of return are higher than in other areas, mentioning that from the standpoint of the individual migrant, land investment is the best type of investment available to them. Most of the migrants sampled were agricultural labourers that lack necessary entrepreneurship skills therefore, they tend not to invest in unfamiliar areas, and instead channel their earnings in land which they know best¹⁰.

2.1.1. *The Impact of Migration on Farming Activity*

One of the main findings in the remittance/development writings is that remittances have caused some migrants and their dependents to give up low paid agricultural works or move from agriculture altogether (IFAD 2008, 32). Specifically in the case of Mexico, high flows of migration, lack of innovative technologies in agriculture, and abandonment of farming activity tend to be the rule in rural areas (Nava-Tablada and da Cloria Marroni 2003, cited in IFAD, 34). In Morocco it has been found that some farmers are able to live from remittances alone and thus decide to abandon cultivation altogether (Glytsos 1998; Lucas 2005 cited in Mendola 2006, 7).

Other studies point to the fact that remittances can cause an upsurge in the land prices and thus the land can become less accessible for poor inhabitants, exacerbating the inequalities between migrant and non-migrant households (de Haan 1999; Vargas-Lundius and Lanly 2007, cited in IFAD 2008, 35). Conversely, Huang and Zhan (2005, 228) in a study conducted in rural China attest that households with migrants acquired and farm more land than before, as more and more households move to urban areas, their farmland becomes available and within reach for those that stay behind. Thus, the availability of farming land would determine the propensity to undertake productive investments in rural areas. The same results have been reached by Afsar (2003 cited in Deshingkar 2004, 13) who points to the fact that migration expands rural land and labour markets by making more rural land available for tenancy. On the other hand, the non-migrant households who rent or lease land are found less prone to migrate since the responsibilities of renting or owning land tend to keep men at home (Adams 1991, p. 31). The relationship between migration and land renting is bidirectional. Land renting can provide households with financial means "to finance the costs of migration either as investment costs or partially covering (temporary) reduced income due to loss of local returns to household labour" (World Bank, "Emerging Challenges of Land Rental Markets, 2006, p. 103).

On the other hand, it has been proved that land ownership prior to migration reduces the need of remitting, since the households left behind have other subsistence resources, and thus the earnings earned abroad can be saved and channelled to productive investments (Taylor et al 1996 cited in Durand et al 1996, 255). Households with more land and livestock resources are also found to invest the most of their earnings in agriculture (Miluka et al 2007, 14). Similar results have been reached by Mwabu and Young in Kenya (1997 cited in Azzarri et al 2008, 180), and Ooms and Hall for the Netherlands (2005 cited in Azzarri et al 2008, 180). They argue that at a certain level of farm size, landownership can be associated with more off-farm activity, due to the technological improvement. The same conclusion was substantiated by a study conducted in Albania which found that on-farm labour activities decrease with increasing land size (Azzarri et al 2008, 186). The same study attests that the more deprived a household is, the higher is the probability to be involved in on-farm works.

Productive land farming and investment in agricultural activities is highly determined by the size and fertility of the plot, irrigation and water availability, and whether the plots are located near roads or

10 "It is naïve to expect that overseas work will transform a poor peasant [...] into an industrial entrepreneur." (Stahl 1989, p. 369 cited in Adams 1991, p. 71)

other public facilities (IFAD 2008). These indicators should be given particular consideration in studies that aim to assess the impact of remittances on land use.

2.1.2. *Labour Participation in Agricultural Works*

There is a divergence of assessments concerning the impact of migration on rural areas. Some studies argue that out migration deprives rural areas of valuable labour force (Skeldon 2003, Cotula and Toulmin 2004, cited in IFAD 2008, 31) and has a disruptive effect on rural economy while other studies emphasise that migrants transfer not only the much needed funds, but also social remittances that come in the form of innovative skills and improvements in the efficiency of agricultural processes in their sending communities. The impact of migration on the rural labour force depends very much on the pattern of migration, household structure, migrant characteristics, and local conditions of the agricultural system. For instance, in densely populated regions with high rates of unemployment, out migration can represent a relief for the local labour market, it can relax the pressure on land and local resources and improve the livelihoods of the rural dwellers left behind (IFAD 2008, 31). Moreover, in the case of seasonal migrants, such circular movements can offer employment for migrants during the lean agricultural season and thus, increase significantly the overall level of the household income (IFAD 2008).

Although, in some areas the outflow of young labour can be substituted usually by an influx of cheap labour as in the case of Senegalese migrants to France, in other countries such as Mali, the remittances are not enough and cannot cover the costs caused by outflows of needed young labour force (Cotula and Toulmin 2004, cited in IFAD 2008, 31). Thus, out rural migration causes significant shortages in the local labour force, specifically in those households which lack strategies to reorganize family labour or lack resources to resort on hired labour (Lucas, 2006 cited in IFAD 2008, 32) while larger households cope easier with decreased labour force than smaller households and find more strategies to substitute for the lack of manpower (de Haan et al. 2000 cited in IFAD 2008, 29).

It has been argued that remittances may discourage members to stay in agriculture; such a trend is especially common among young members (Andrade-Eekhoff 2002 cited in Vargas-Lundius 2004, 7). Miluka et al. (2007) found that in Albania returned migrant and their members work fewer hours in agriculture and afford more hours of leisure time due to an increased and less variable income. The same is true for returned migrants especially those with prior migration experience (Azzarri et al 2008, 191). Another study conducted in the Kayes area (western Mali) by Azam and Gubert (2002, 26) find that remittances sent home by migrants give rise to moral hazard in the households left behind, specifically influencing their dependents 'to indulge in shirking'. The data set was based on a sample survey conducted by the authors in eight villages in the region and surveyed 300 randomly selected households. The authors found that despite increased technical equipment in the migrant households, it does not show increased agricultural performance compared to non-migrant households, proving that such a contractual arrangement between the migrant and his family gives rise to opportunistic behaviour such as working less hours and less hard despite household's capital endowment (Azam and Gubert 2002, 26). The same results were reached by Amuedo-Dorantes and Pozo (2004 cited in Lucas 2007, 109) who indicate that overall hours worked by rural families decline with remittance receipts, because of reduced informal sector and unpaid work. Contrary to the above cited studies, de Janvry (1992 cited in Mendola 2006, 6) finds that family members left behind tend to spend less on consumption goods and invest more in order to motivate the migrant to remit more.

A study conducted by Walewski et al (2008) in Moldova finds a weak negative influence of remittances on employment probability of migrants' dependents, while more than 13 percent of polled migrants do not intend to return in their original communities but plan to move to cities or in the capital in an attempt to phase out from agriculture.

2.1.3. *Rural Out Migration Effect on Crop Production and Livestock*

Earlier studies posit that there is a negative effect of migration on agricultural production, caused first, by substitution of labour force for leisure due to remittances, and second, by the loss of significant chunk of active and educated labour force (Lipton 1980; Palmer 1985 cited in Miluka et al 2007).

McCarthy et al (2006, 16) finds that in Albania different types and patterns of rural migration have different effects on agricultural production and livestock. For instance temporary/circular migrants choose to invest in fruit cultivation and less in livestock accumulation since the first is more intensive in terms of labour and time which temporary migrants can afford while permanent migration has an inverse effect on the household's choice. In countries such as Botswana, Lesotho, Malawi, and Mozambique reduced labour force decreased crop production, however on the long run enhanced both crop production and cattle accumulation, although improvements in crop production were offset by the direct effects of labour withdrawal to the mines (Lucas 1987 cited in Lucas 2007, 109) while in rural China, remittances had a clear effect on crop production (de Brauw, Taylor and Rozelle 2001, cited in IFAD 2008).

Rozelle (2002, cited in Miluka et al 2007) argues that as family members leave the farm to migrate, the yields fall sharply and although some of them own more land than non-migrant households, they devote fewer hours to farm-related works. The same results have been found by Young (2004, cited in Deshingkar 2004, 13) who mentions that although there is an effect of migration on agricultural production in China, total grain output fell by less than two percent while total household income increased on average by 16 percent. Different results were found for Albania, where on the long run, rural migrants tend to shift their on-farm investments from crop production to livestock accumulation (Miluka et al 2007, 1-30). The same evidence that shows the shift to livestock production has been observed in Burkina Faso where intercontinental migration positively affects the augmentation of income into livestock production but affects negatively non-farm income generating initiatives (Konseiga 2004, cited in Miluka et al 2007).

2.1.4. *Impact on Farm's Technical Efficiency*

Germanji and Swinnen (2004 cited in Miluka et al 2007, 2) found that remittances encumber farm technical efficiency in Albania due to decreased labour force involved in agricultural works. The same results have been reached by Miluka et al. (2007, 15) stating that Albanian migrants spend comparatively even less than their non-migrant counterparts, pointing to a trend of disinvestment in agriculture, and signalling that migration in Albania is used to move out of agriculture altogether. Although migrant household spent more on farm equipment renting, fertilizers, and other efficient inputs, the amount spent was still lower than their investment capacity.

Mendola (2005, 2-17) finds that permanent migration in rural Bangladesh is negatively associated with technology adoption while international migration in general has a positive impact on productivity enhancement choices in farm households, such as adoption of high-yielding varieties of rice and other high risk agricultural investments. Conversely, a study conducted in the states of Uttar Pradesh and Bihar in India, reveals that farm efficiency of the migrant households has not been significantly affected by migration of other members of the family (Singh and Varghese 2010). In Mali, although migration fostered adoption of innovative technology, it did not increase agricultural productivity compared to other non-migrant households, since labour shortage offsets any productive improvements in agriculture (Azam and Gubert 2002, 2004). While a study in Mexico attests that investment in farm equipment does occur, it also shows that it is mostly channelled in low density rural areas and despite heavy investment in agricultural equipment, there are no apparent earnings from farming production itself (El Colegio de la Frontera Norte 2002, cited in Orozco 2002, 12). Remittances increase the demand for land as these ease capital constraints by allowing households to invest in labour-substituting technology, such as farm animals or machinery (World Bank, *Emerging Challenges of Land Rental Markets*, 2006, p. 103).

Encouraging results have been found in Moldova, where a recent study indicates that more than 10 percent of remittances are spent on investments on the farms such as acquisition of new land, farm buildings or farming machinery, although such investment happen only in a handful of regions and more research should be carried out to detect other factors at play, apart from of high flows of remittances (Walewski et al 2008, 31). It would be interesting to analyse why such investments take place in some regions and not in others and whether these stepped up investments are accompanied by increased agricultural productivity and thus higher incomes in migrant households.

2.1.5. Effect of Farm and Household Income

Productive investment of remittances is crucial since the rates of return should be higher and thus assure an increased and stable income and benefits that last more than those gained from consumptive investment. Migration does not decrease farm income but was actually found to be higher in households with livestock investments (Miluka et al. 2007). While it is difficult to account for the exact share of remittances in the household's disposable income, studies have found that they represent a significant proportion of households' incomes though this varies from one country to another. In some countries such as Senegal, remittances can make up to 80 percent of the household income (Doorn 2002, cited in IFAD 2008).

3. Agriculture and Rural Migration in Moldova

More than half of Moldova's population lives in rural areas, specifically 58.6 percent of the total population (Population and Demographic Processes in the Republic of Moldova, NBS 2009). Agriculture in Moldova registered a steep decline in the last years in terms of both production and productivity. Agricultural output declined by 35 percent in the first half of 90s and by 20 percent in the second half, being currently less than 50 percent of the agricultural output registered during 1989-1991¹¹. The structure of the agricultural production has changed as well, with more agricultural areas allocated to crops which require minimum resources and have guaranteed markets, such as wheat, corn and sunflower, and less areas covered with intensive crops, such as tobacco and vegetables. While the share of agricultural support has been a stable three percent from total governmental expenditures, the share of agriculture in GDP contracted by 34 percent, decreasing from 25.4 percent in 2000 to 8.7 percent in 2009 (See Figure 1).

Despite the fact that the percentage of population living in absolute poverty has been decreasing over time, with poverty incidence of 30 percent in 2006 declining to 25.8 percent in 2007 (HBS cited in Cruc O. et al. IDIS Viitorul, Study on Social Protection and Social Inclusion in Moldova 2009). Ninety nine percent of rural households possess agricultural land, yet the income from agricultural activities is significantly low. The income from agricultural activities has been decreasing over the years being just 19.1 percent in 2010, down from 28.4 % in 2007, while the income from remittances was 22.8 percent in 2010 (See Table 1.) The income for those fully employed in agricultural activities was 40.8 percent in 2007 (HBS cited in Cruc O. et al. IDIS Viitorul, Study on Social Protection and Social Inclusion in Moldova 2009, p.84).

11 Non-governmental portal, Europa.md: http://www.europa.md/primary.php?d=rom_Despre...&m=Politici.36

Table 1: Disposable income of rural households, 2007-2010

	2007	2008	2009	2010
Total of disposable incomes (monthly average per person, MDL)	878,9	987,0	939,2	1054,7
In percentage, % :				
Salary	26,6	28,0	30,6	28,9
Individual agricultural activity	28,4	20,7	18,0	19,1
Individual non-agricultural activity	4,4	6,1	5,7	5,0
Income from property	0,1	0,1	0,0	0,1
Social benefits	15,3	16,3	20,6	21,2
Pensions	13,1	14,3	17,6	17,2
Allowances for children	0,4	0,5	0,6	0,6
Compensations	0,6	0,7	0,9	0,8
Social aid	-	-	0,1	0,4
Other income	25,3	28,7	25,1	25,7
From which remittances	22,2	25,9	22,0	22,8

Source: Population Incomes and Expenditures in 2010, NBS Moldova¹²

This lack of profitability coupled with limited access to markets, due to inadequate infrastructure; discourage farmers from farming land that leaves them with no choice than leave the land fallow. Just for comparison, Moldova has 0.4 ha arable land per inhabitant, being surpassed only by Hungary (0,466 ha/inhabitant), Finland (0,424 hectare/inhabitant), Denmark (0,422 hectare/inhabitant), Bulgaria (0,422 hectare/inhabitant), and Romania (0,422 hectare/inhabitant), while the area of arable land per inhabitant is also eight times bigger than the value of some states with outstanding agricultural performance such as Holland and Switzerland (Chivriga 2009, p. 11). There are more than 380.000 farms which process 561, 3 thousand hectares down from 784, 5 thousand hectares in 2002 (a decrease of 28.4 percent). Half of the population which was engaged in agriculture in 2001 (400.000) emigrated abroad while approximately 100.000 are considered inactive labour force living on remittances received from migrated family members (Chivriga 2009, p. 14). Most of the remaining farms are subsistent due to meagre but also to inappropriate allocation of state subventions, limited use of advanced technologies and frequent unfavourable weather conditions such as droughts, floods and extreme cold temperate that occur during the seeding season and which are likely to be expected more frequently in the future (National Human Development Report, Climate Change in Moldova: Socio-Economic Impact and Policy Options for Adaptation 2009). Moreover, the average salary in agriculture remains to be the lowest comparing to other sectors of the economy the monthly income being just 95 euro in 2008 (See Table 2).

12 <http://www.statistica.md/newsview.php?l=ro&idc=168&id=3368>

Table 2: Average salary by sector of the economy, in Euro

Sectors of Economy	2000	2007	2008
Agriculture, hunting and forestry	21.9	66.2	95.3
Construction	47	178.9	232.3
Transport and Communication	55.3	183.2	230.5
Financial activities	204.8	280.2	355.9
Education	21.6	81.4	109.1
Health and Social assistance	20	102.7	147.9
Public administration	45.1	144.1	183.6
Exchange rate, EURO/MDL	11.49	16.59	15.29

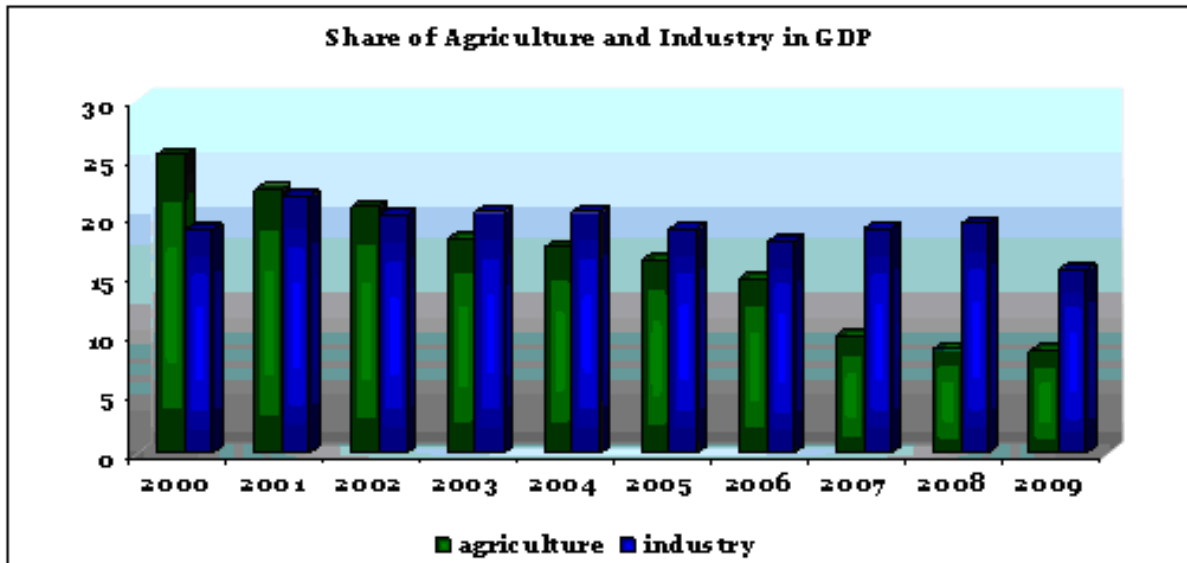
Source: Cruc O. et al. IDIS Viitorul, Study on Social Protection and Social Inclusion in Moldova 2009

After the conclusion of land reform, there were 1.5 million of landowners in Moldova who received on average 1.5 hectare of agricultural land, fragmented usually in 3 to 5 separate plots. The lingering problem of land fragmentation hampers effective land processing and impacts greatly on agricultural productivity.

In 2008, 51 percent of peasant farms and personal auxiliary households (hereinafter called small agricultural entrepreneurs¹³) rented their land, while 49 percent worked the plots individually. Though personal auxiliary households occupy 307,8 thousand hectares or 13,7 percent from the total agricultural area in the country, it produces 42,6 percent from the total national volume of agricultural production, inclusively 28,8 percent from vegetal production and 82,3 percent from animal production, a share that continues to decrease. Worth mentioning is that more than half of this production (52.6 percent) is obtained on plots smaller than 0.4 hectare (*Agricultural Activity of Small Agricultural Entrepreneurs in the Republic of Moldova in 2008*, BNS 2008). Peasant farms which occupy 585, 3 thousand hectare from total agricultural area or 26, 1 percent produce 21, 8 percent of the agricultural production, 29, 3 percent of the vegetal production and 0, 5 percent of the animal production, which reflects the low productivity of these agricultural units. Four out of five of the people aged 65 and over are engaged in agricultural works being mostly subsistence farming (Cruc O. et al. IDIS Viitorul, *Study on Social Protection and Social Inclusion in Moldova 2009*, p. 27)

13 Small agricultural entrepreneurs is the category of producers who own personal auxiliary households or kitchen plots, and agricultural land up to 10 hectares (NBS Moldova).

Figure 1: Share of Agriculture and Industry in GDP



Source: Expert Group, Economic Reality, no.12, March 2010¹⁴

The type of ownership of the agricultural areas depicts a contrasting picture as well. The area covered with agricultural crops, both on peasant farms and on kitchen plots, decreased over time especially on peasant farms, while the area planted with fodder plants almost doubled (from 2.5 percent in 2004 to 4.2 percent in 2008). At the same time, the areas covered by perennial crops such as vineyards increased by 4 percent on peasant farms and by 5.3 percent on individual households.

Comparing with other countries, agricultural support programs run by the state are very modest. The state support agriculture through two ways: through agricultural monetary subventions and non-monetary means. The agricultural sector is likely to suffer further in the current circumstances of sluggish recovery from the global economic downturn since local budgets have been already cut by 20 percent, slashing further subsidies and relocating the resources to the sectors that suffered mostly due to the economic crisis such as construction, transport, and trade services (Cruc O. et al. IDIS Viitorul, *Study on Social Protection and Social Inclusion in Moldova* 2009, p. 22). Moreover, in 2009 more than 27,000 people have lost their jobs in Moldova, while the number of unemployed was 80,000, out of which 62 percent were men.

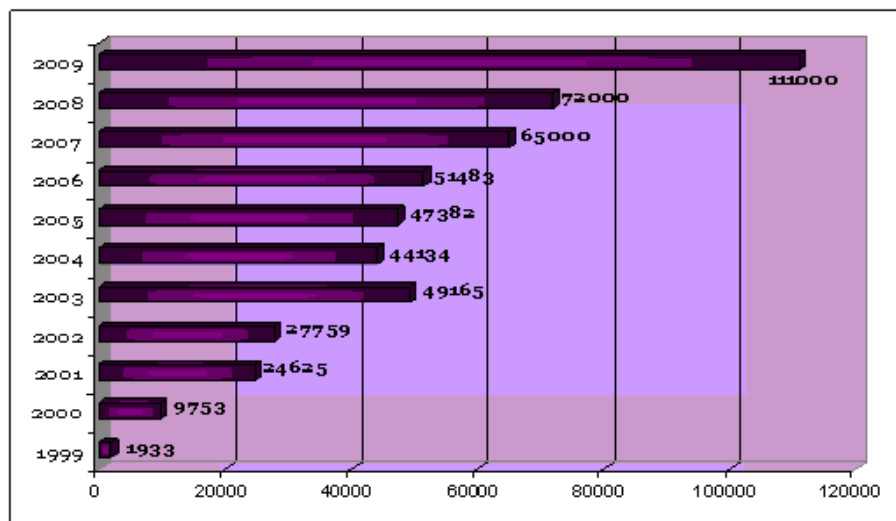
The land market did not develop much after the conclusion of the land reform while the systematic information about land transactions is very scarce or missing altogether. Although the number of land sales increased constantly over the years, from 1,933 thousand hectares in 1999 to 72,000 thousand hectares in 2008 (See Figure 2), these were dwarfed by the number of rent transactions (Chivriga 2009, p. 24). The average price of one hectare of agricultural land in 2008 was around 600 Euro (10, 301 MDL). The number of agricultural land sales increased by 70 percent in the last years and surpassed 100.000 transactions¹⁵; however, the average size of a commercialized plot¹⁶ was 0.08 hectare.

Usually landowners sell their plots below the price of their value due to information asymmetry while the new owner has the responsibility to cover the costs of its registration at the Office of Cadastre and has to pay for the registration a cost which is 0.20 percent from the value of the acquired land.

14 Expert Group, Economic Reality, available at: http://expert-grup.org/library_upld/d235.pdf

15 <http://www.unimedia.md/?mod=news&cid=18139>

16 Transactions of plots (sales and purchases) aimed to be exploited for profit.

Figure 2: Number of agricultural land sales transactions

Source: Chivriga V., 2009, Evolution of the agricultural land market in Republic of Moldova, No. 4 2009, IDIS Viitorul

The price of land is likely to increase and reach up to 2000 Euro per hectare if the agricultural land market will be open to foreigners, as currently non-residents are prohibited by law to purchase agricultural land but are allowed to lease. The former Minister of Economy, Igor Dodon, mentioned that the price of consolidated agricultural land is already between 1500 and 2000 EUR per hectare¹⁷. The average price of the agricultural land is still ten times cheaper than in Czech Republic and four times cheaper than in Romania. However, there are debates surrounding the changes to be brought to the land code which might stipulate that only foreigners, resident in the Republic of Moldova are eligible to buy agricultural land.

The most popular form of land transaction is renting. In 2008 41 percent or 808, 1 thousand ha of agricultural land in Moldova was rented out with agricultural cooperatives gradually increasing their rented share (see Figure no. 3). Worth mentioning is that the area of agricultural land rented for longer than 3 years is very limited. For instance from the total area of rented land (825, 9 thousand ha) only 4.5 percent (37,353 ha) were rented out for more than 3 years while the rest, 95.4 percent, was rented for less than 3 years. Although the maximum renting period is fixed for a number of 30 years, renting the land for less than 3 years implies a more simple procedure and significantly lower costs (Chivriga 2009, p. 27). Such a short renting period is beneficial for cooperatives and other agricultural companies who rent land since it ensures profits and discourages them from investing or preserving the quality of the rented land, however, this is in the detriment of the lessor. Out of 37,353 hectares, 74.9 percent (28,011 hectare) were rented by limited liability companies, 12 percent (4,503 ha) by joint-stock companies, 8.17 percent (3,054 ha) by peasant farms and 4.77 percent (1,785 ha) by agricultural cooperatives (see Figure 3). Another form of land transaction is the inheritance (63,191) of land and donations or land swaps (23,228 in 2008).

The quality of infrastructure is yet another substantial hindrance in agricultural business. The real estimated costs of transportation inside the country are two to three times higher than physical distances would suggest (Prohntichi and Oprunenco, Expert Group 2010, p.22). For a foreign investor to establish an agricultural products' storing facility near the field it might take one year while the government adopts the decision on changing the destination of the agricultural land and another for obtaining a permit (Prohntichi and Oprunenco, Expert Group 2010, p. 25).

17 <http://ziar.jurnal.md/2010/05/25/vinderea-pamantului-pro-si-contra/>

Figure 3: Rented agricultural land

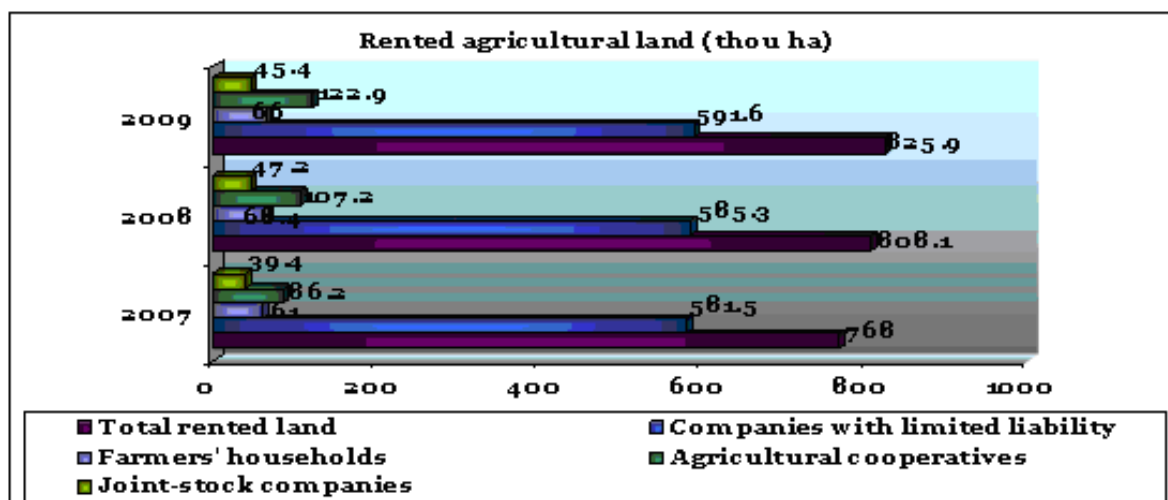


Table 3: Employment by economic sectors, as % of the total employment

Economy sectors	2000	2001	2002	2003	2004	2005	2006	2007	2008
Agriculture	50.9	51	49.6	43	40.1	40.7	33.6	32.8	31.1
Industry	13.9	13.9	14.4	16	16.2	16	18.2	18.7	19.7
Services	35.2	35.1	36	41	43.7	43.3	48.2	48.5	49.2

Source: National Bureau of Statistics of Moldova

4. Rural Out Migration

Although the system of tracking migration flows has been very much improved, there are no concrete figures regarding the exact number of citizens leaving the villages. This was very much hampered by the type of migration in Moldova which has been mostly informal, temporary and seasonal in nature. Approximately 40 percent of the total active force in villages is believed to have left for work abroad¹⁸. According to the 2004 Population Census, the number of migrants nation-wide was estimated to be around 400.000 persons while international organizations working in the field of migration in Moldova (e.g. IOM) put this figure close to 800.000, whilst the real number is likely to surpass one million. This is unprecedented considering that Moldova’s active labour force is 1.6 million people (Cuc et al. 2005, Pushkina 2002 cited in Dennis Görlich and Christoph Trebesch 2008, p. 2). Counterintuitively, Dennis Görlich and Christoph Trebesch (2008, p. 17) found that marital status, existence of dependants or young dependants don’t have any effect on the parents who decide to migrate seasonally or permanently

18 <http://europa.md/subpagina/arata/36/Reforma%20agriculturii>

as it would make sense that parents with young dependants would engage in seasonal migration to be able to return home regularly. The authors found that rural migrants in Moldova regardless of being married and leaving young dependants back in the country; do not choose shorter stays abroad which signals the emotional and familial cost of migration, a theme recently picked up by many government papers in Moldova. According to Human Development Report, Moldova has an emigration rate of 14.3 percent (Human Development Report 2009).

About two thirds of those who migrate are men from rural areas with an average age of 35 years (IOM). Sixty seven percent of migrants are from rural areas which had to flee their homes due to the lack of job opportunities and meagre income obtained from agricultural works¹⁹ (See Table 4). Worth mentioning is that based on previous migration studies, 45.9 percent of polled rural migrants plan to stay abroad between 2-5 years while 21 percent plan to stay more than 5 years. Eighteen percent of urban migrants did not have an official status abroad while the figure for rural migrants stood at 42.7 percent (Migration of Labour Force, NBS Moldova 2007, p. 23) which makes the return of migrants originating from rural areas even more problematic.

Table 4: Distribution of migrants by economic activity prior to migration and in the destination countries, 2007

Economic activity of migrants prior to migration	Total, thous/pers	Economic activity of migrants abroad, percentage, 2007							
		Agriculture	Industry	Construction	Trade	Hotels and Restaurants	Transport & Communications	Services in private households	Other
Agriculture	41,7	4,4	4,1	66,4	7,1	1,0	0,9	12,9	3,2
Industry	10,3	1,1	15,6	40,5	13,5	1,6	1,9	24,5	1,4
Construction	17,1	2,4	3,5	85,9	1,0	0,8	2,3	2,4	1,5
Trade	12,6	0,8	5,0	24,2	27,0	3,4	1,0	38,1	0,4
Hotels and Restaurants	1,4	0,0	13,7	9,1	6,7	38,2	0,0	27,0	5,3
Transport and Communications	6,0	0,0	2,2	44,3	5,9	0,3	41,8	4,1	1,5
Services in private households	0,0	0,0	0,0	0,0	0,0	0,0	0,0	100	0,0
Other activities	22,8	1,3	2,1	28,5	7,0	4,3	0,8	49,1	7,0

Source: Migration of Labour Force, NBS Moldova 2007

There is an unprecedented rural depopulation in Moldova. According to Moldovan experts Moldova loses approximately 8,000 people annually, equivalent to the population of 5-6 average Moldova villages (Boris Gilca, Ziarul de Garda, No: 292, September 16 2010) process triggered by low attractiveness of

19 Approximately 83 percent of migrants left the country due to the financial crisis in 1998 (IMF 2005 cited in Cruc O. et al. IDIS Viitorul, Study on Social Protection and Social Inclusion in Moldova 2009)

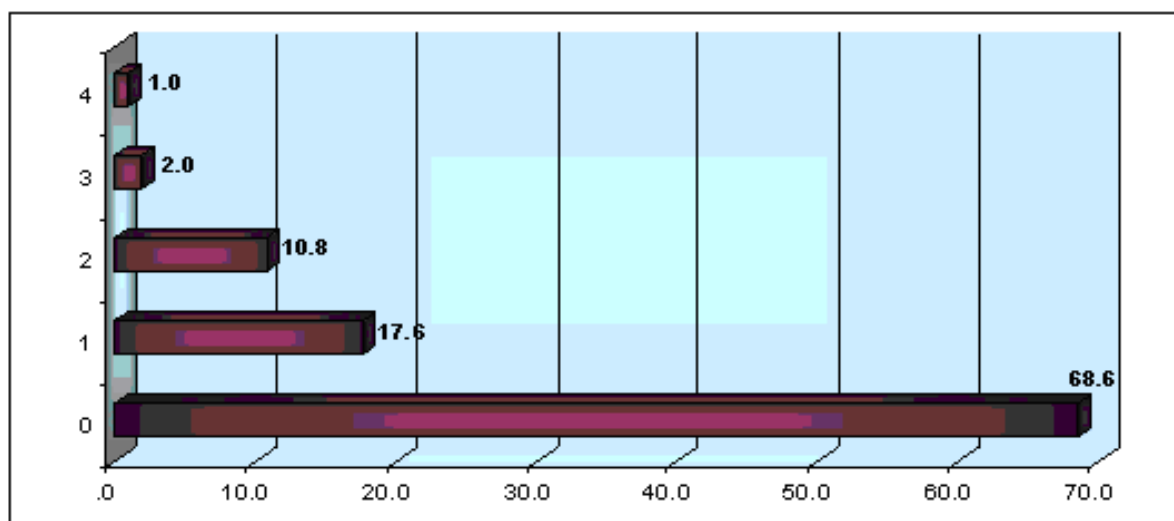
the rural areas due to derelict or absent infrastructure, lack of public institutions, absence of both on-farm and off-farm employment opportunities for younger people to stay behind and other ills related to neglected rural areas.

5. Results

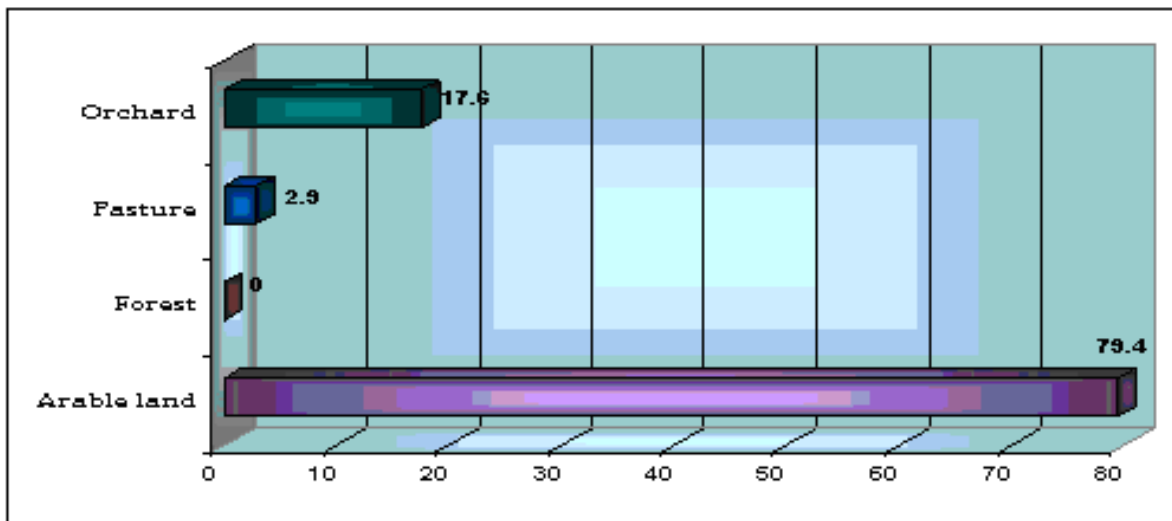
5.1. Migration Trends

For the purpose of this study, the author undertook a survey of rural households in the north, central and southern part of Moldova. The survey conducted by CBS AXA was implemented in 4 rayons of Republic of Moldova: Drochia, Singerei, Anenii-Noi, Straseni, in the villages of Scoreni, Iezerenii Vechi, Botnaresti, and Petreni, surveying a small sample of 102 random rural households. Most of the household interviewed had two (27.5 percent), four (22.5 percent) and three (15.7 percent) members, out of which 65.4 percent were not employed in Moldova, with just 18.6 percent of the households having one person employed in Moldova. Out of these 18.6 percent, 17.6 percent were employed in agriculture (see Figure 4). Twenty five percent of the surveyed households mentioned they had one member of their family at work abroad.

Figure 4: How many of your household members work in agriculture?



Most of the respondents possess arable land (79.4 percent), 17.6 percent own orchard, 2.9 percent have pasture and none own forest (see Figure 5). Half (52 percent) of the households were connected to piped natural gas, 49 percent used a gas balloon, and 59.8 percent were connected to piped water. Those connected to piped water have access usually for a couple of hours a day.

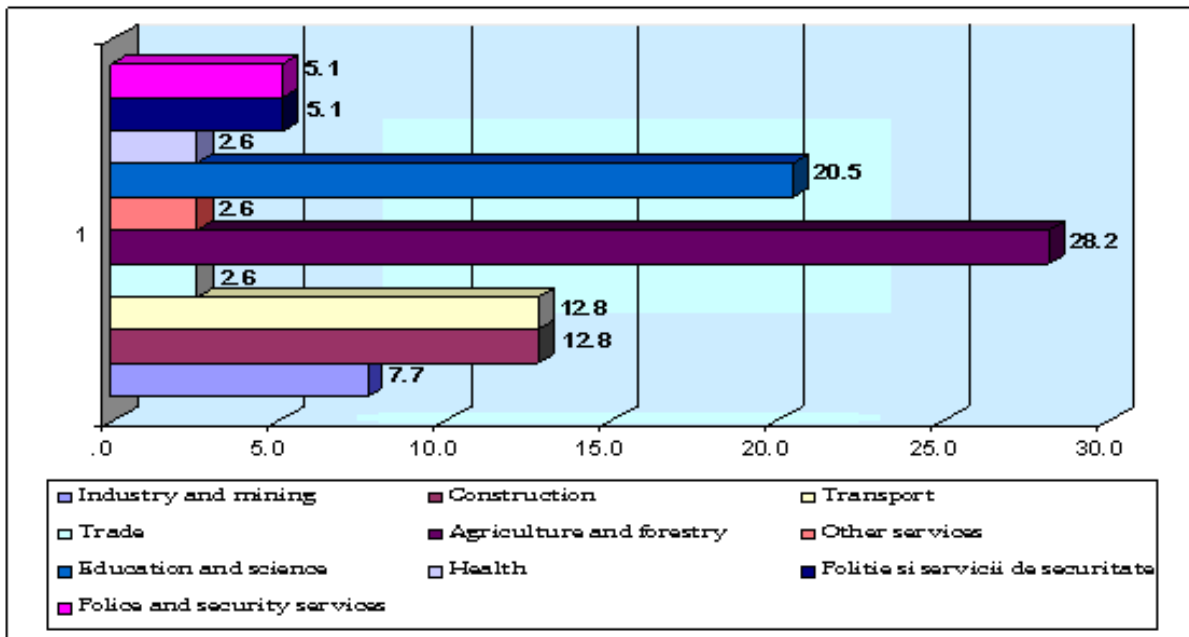
Figure 5: Does your household own any of the following?

Sixty one percent of the households were headed by men, whereas women headed 39.2 percent of the households, which highlights the feminization of migration with women having more work opportunities abroad than men, migrating towards countries which lend themselves to services usually performed by women such as live-in care giving (in Italy) and cleaning services (in Portugal, Israel, and France). This is the sector which was less impacted by the financial crisis although many women had to cope with less working hours and longer job searching time; contrasted by construction sector, the hardest hit by the recession, which employs most of the Moldovan men abroad.

As regards the age structure of the households surveyed, the head of the household is usually more than 50 years old (52.9 percent) and is also a pensioner (47.6 percent). Those who are employed, work in agriculture (28.2 percent) followed by those who are working in the education sector (20.5 percent) (See Figure 6).

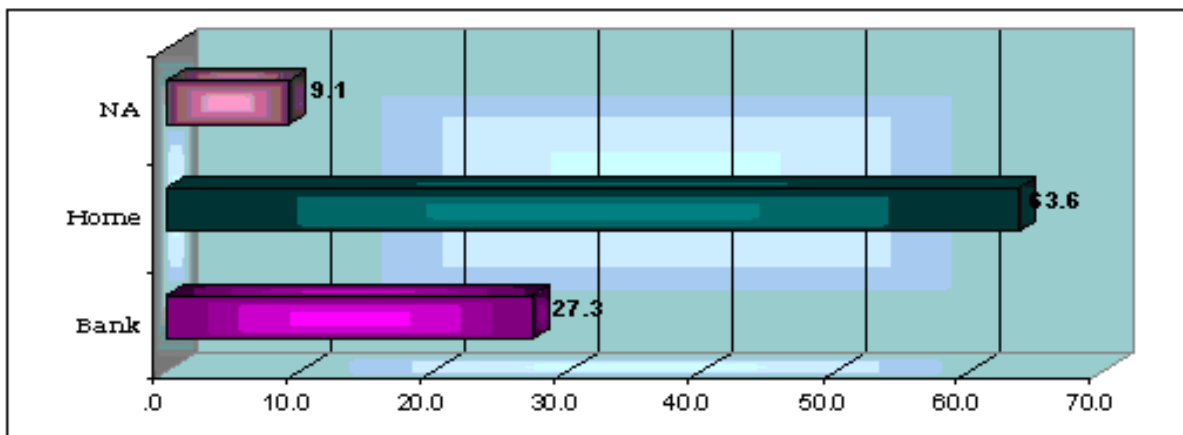
The entrepreneurship mood in rural areas is disappointingly low, a fact confirmed by similar migration studies in the past years. An overwhelming percentage of 89.2 of households had never have a family business and neither plan to start one, 7.8 percent never had a business but do plan to start one, one percent had a business in past but do not intent to start one again while only two percent of the households have currently a business. Rural entrepreneurs set up usually small family business with limited resources to expand, or invest in the same agricultural business such as mills and vegetable greenhouses, businesses already prevalent in their region which usually contribute to the already high market competition and low profitability of businesses (CIVIS and IASCI, “Consolidating the link between Remittances and Development”).

Figure 6: In which sector of the economy is the head of the household employed?



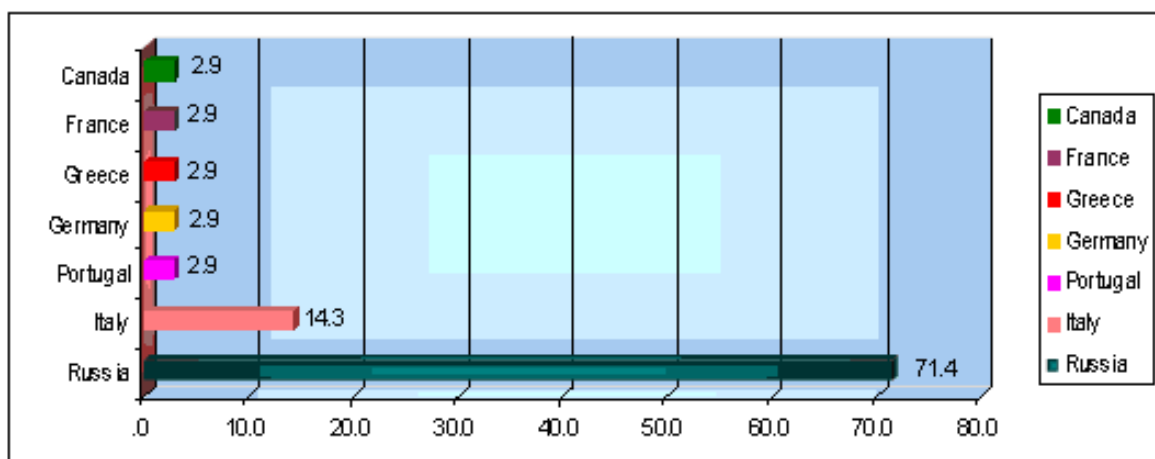
The main source of income comes from salary (30 percent), 27 percent from pension, 17 percent from day-labour or occasional incomes, 13 percent from remittances and only five percent from agricultural production grown on land worked individually (See Annex 1). Asked whether the household managed to make some savings from the monthly incomes, only 11 percent mentioned to have done so, while none of the respondents mentioned that they could invest the savings to buy houses or apartments in their village or other urban areas, and none bought land under construction, or land for rent. Just ten percent of the households mentioned to have spent the savings on repairing houses or apartments, spending on average between 90 and 120 Euro (1500-2000 MDL), one respondent mentioned to have bought agricultural land and spent 480 EUR (8000 MDL), two persons spent the money on fertilizers, two persons bought agricultural machines and spent between 360-662 EUR (6000-11000 MDL), while 34 percent of household spent their savings on procurement of animals spending on average 60 EUR (1000 MDL) which seems to be the most affordable type of investment for the majority of the respondents.

Asked where the family is keeping its savings the majority answered that these are kept at home (63.6 percent) and just 27.3 percent keep their savings at the bank (see Figure 7), which is a low number considering that the number of financial services providers increased significantly in Moldova accompanied by many government projects targeted at increasing financial literacy of migrants and their dependents in Moldova.

Figure 7: Where do you keep your savings?

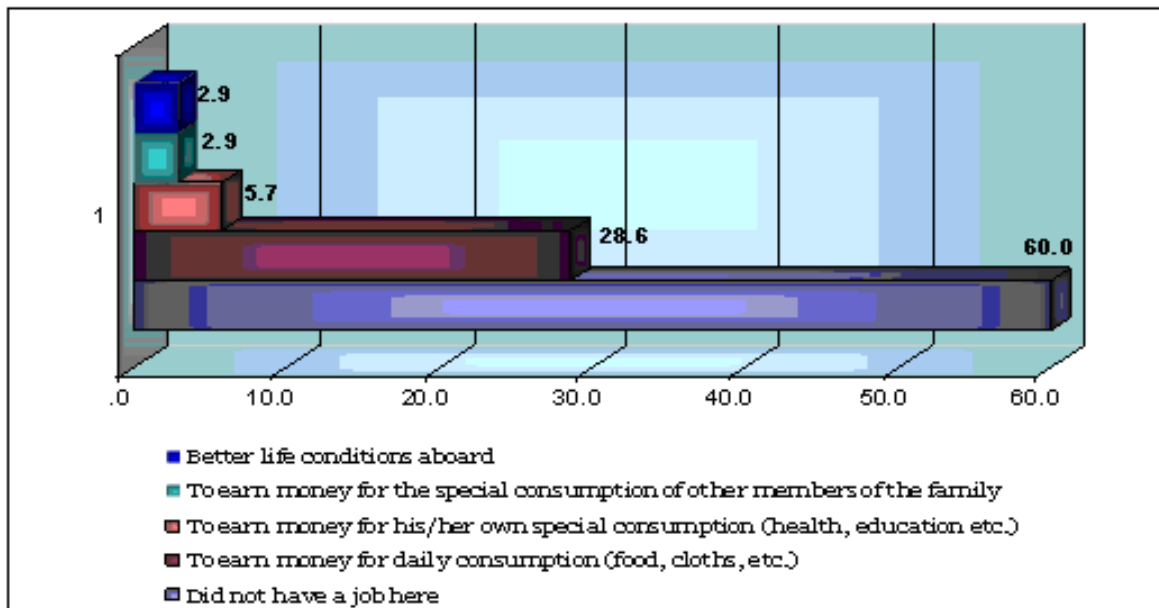
A substantive proportion of 59 percent considered their income as insufficient to cover primary needs, 33 percent of the respondents mentioned that the income is sufficient to cover only primary needs, and just four percent appreciated their income as sufficient for a decent life, but insufficient to buy more expensive goods; while the respondents estimated an amount between 300 EUR (5000 MDL) (20 percent) and 600 EUR (10000 MDL) which a household must earn in order not to emigrate abroad.

Most popular destinations of rural migrants confirm those already revealed by numerous studies in Moldova, with Russia being the main destination of rural migrants where 71 percent of the migrants head for work, followed by 14.3 percent who migrate to Italy (See Figure 8). Substantial numbers of those who migrate to Russia do so to finance their travel further to the west.

Figure 8: Main destinations of rural migrants

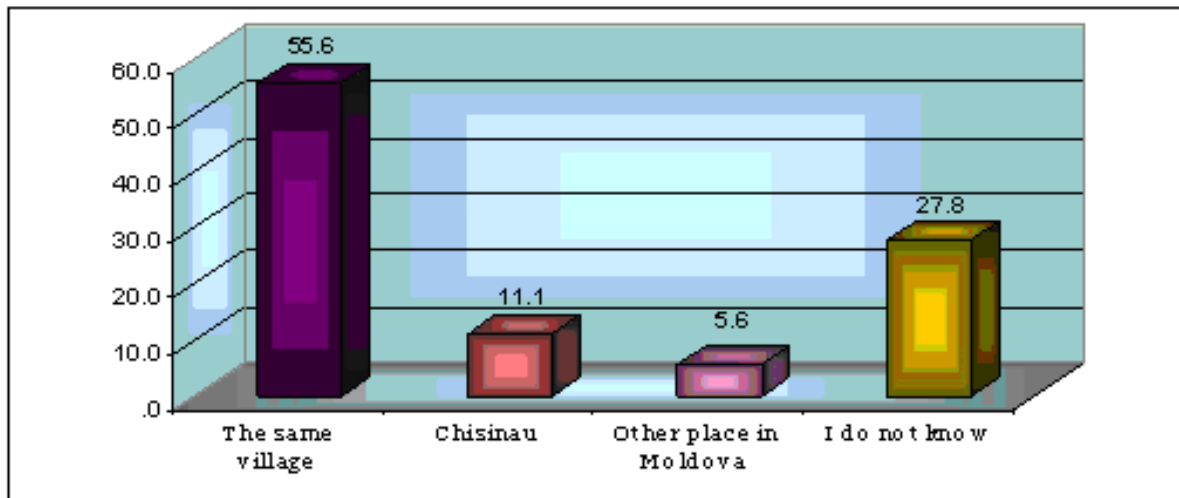
The vast majority of those who migrated did so because of lack of employment opportunities in the country (60 percent), followed by 27 percent who migrated to cover for the basic consumption needs and to cover expenses related to health and education necessities (5.7 percent) (See Figure 9). Investing in education is a priority for many migrant households and it is the only way for many to access higher education.

Figure 9: Why did the members of your household migrate?



Asked whether their family member is employed legally abroad, 40 percent responded positively, 31.4 percent answered negatively, while 29 percent abstained from responding. Those who returned home in the last three months preceding the survey, 11.4 percent had to leave the destination country due to legal reasons, 60 percent returned due to family reasons, 26 percent for the holidays and just three percent returned to work in the country. Although most of the migrants (29 percent) do intend to return home, 22 percent aim to return after 4-6 years and the same percentage (22) aim to return after 1-3 years. Those who would come back will return in order to reunite with their family members (72 percent) while 17 percent will return to continue their employment in Moldova. Fifty six percent of those who plan to return will come back to the same village, 28 percent did not take a decision in this regard, while 11 percent plan to move to the capital (see Figure 10). The percentage of those who plan to stay in the same village are encouraging and somewhat counterintuitive considering the lack of basic rural infrastructure, high employment and off-putting climate investment. Previous studies on rural migration in Moldova found the same percentage (13) willing to move to capital or other place in Moldova (Mateusz Walewski et al., Case study 2008).

Figure 10: If the person comes back, do you think he/she will reside in the same village/town or move somewhere else in Moldova?



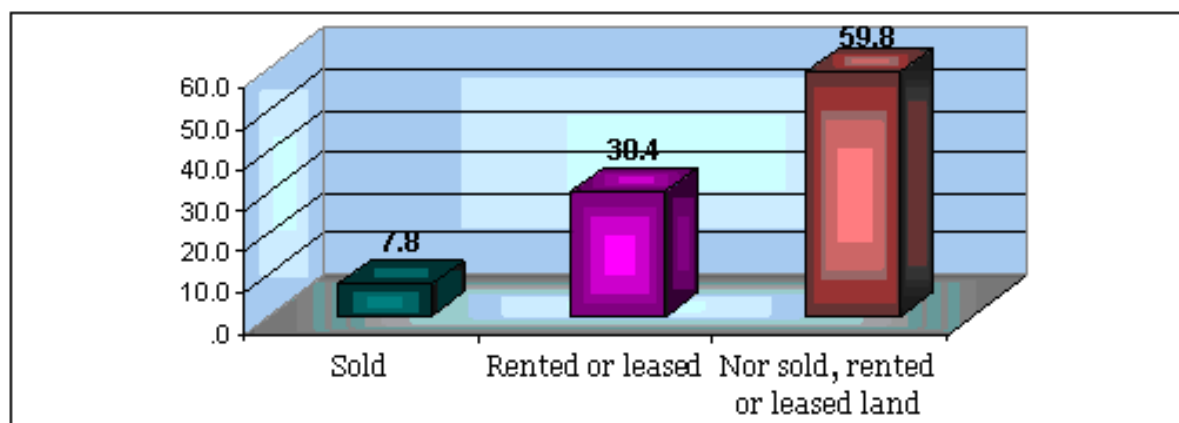
Worth mentioning however is that for an overwhelming 83 percent of migrants the departure does not depend on the season, with only 11 percent of migrants leaving abroad in spring.

5.2. Land Use

This part aims to analyse land use in rural areas, particularly whether remittances contribute to the development of the agricultural sector or if they act as an incentive to move out of agriculture by leasing or selling the land to corporate farms. Moreover, it aims to investigate whether migrant households invest in capital intensive technologies to compensate for the labour loss on-farm activities

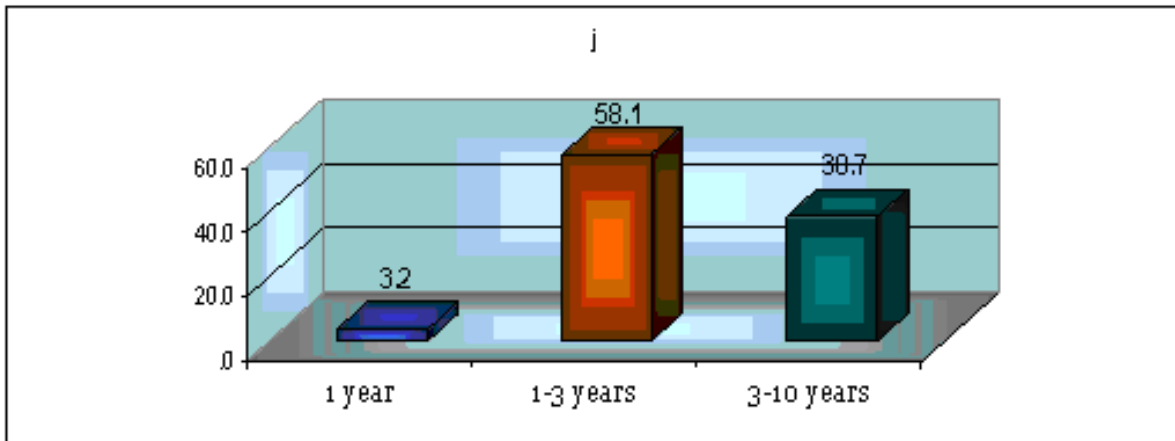
According to the survey, 59 percent of the respondents did not sell lease or rent land, with only 30.4 percent of the households rented or leased land, followed by a tiny 7.8 percent who sold land (See Figure 11). All those who rented or leased land had registered their rent/lease agreement.

Figure 11: Have your household bought, donated, sold, rented, or donated land in the last year?



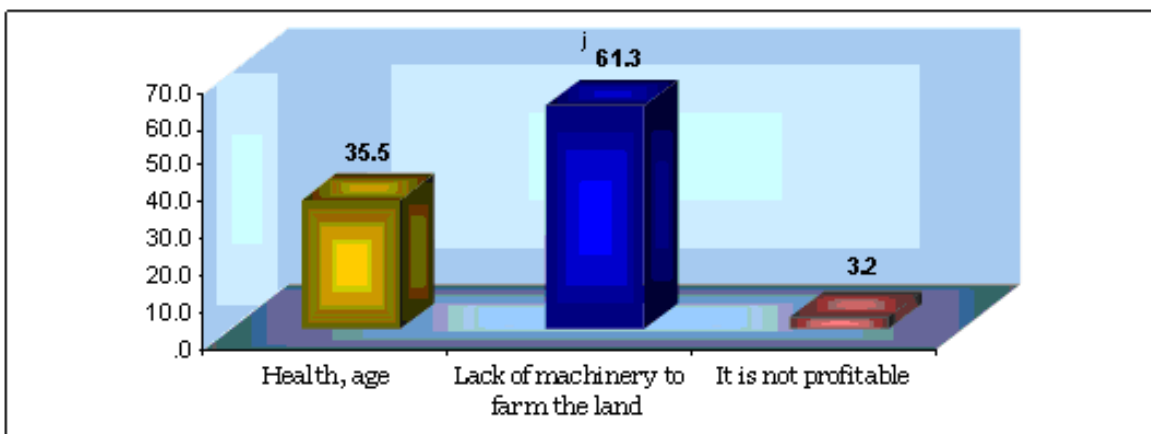
Most of the lease agreements were concluded for 1-3 years (58.1 percent), 39 percent were concluded for 3-10 years, and 3.2 percent were concluded for one year only (See Figure 12). These results mirror the trends at the national level with more landowners renting and leasing their land for maximum 3 years and less for more than 3 years.

Figure 12: For how long did you conclude the land lease agreement term?



The main reasons for renting or leasing land were the lack of appropriate machinery to farm land (61.3 percent), followed by concerns for age and health (36 percent) and 3.2 percent mentioned that they rented/leased out their land because it was not profitable to farm the land themselves (See Figure 13). The most often type of rented and leased land was arable land, rented/leased out in the proportion of 90 percent and orchard in proportion of 10 percent. Just 12 percent of the respondents have sold parts of their land while only 4 percent mentioned that they plan to sell their land in the future.

Figure 13: Why did your household rent/lease land?



The reticence to sell the land might stem from the fact that the value of land in Moldova is very low compared to the price of the arable land in other European countries. Moreover, there is no real demand for arable land in rural areas, due to the low price of agricultural products and the difficulties

met by every farmer to commercialize its agricultural products; lack of appropriate technical equipment to farm the land; lack of a solid credit system in the rural areas, and other problems posed by the unfinished regulations that would otherwise enable the implementation of a mortgage system for arable land (Chivriga 2009). The price of land could be also caused by the lack of reliable information regarding the genuine value of the land, or in other cases deliberate underestimation of the price to avert notary taxes and taxes related to the registration in the land registry. The Ministry of Agriculture and Food Industry of Moldova, has undertaken recently a new project of the Land Code which will stipulate new conditions for selling and buying of agricultural land, aimed at integrating new young families in agriculture, such as graduates of agricultural institutions and former migrants, offering free of interest credits and grants up to 19 thousand EUR aimed to help new entrepreneurs establish optimal agricultural households²⁰. The project aims to support agricultural entrepreneurs who plan to produce agricultural products destined for export, substitute products which are currently imported and co-finance land leasing contracts. Forty percent of the loan is non-returnable interest-free grant, while 60 percent is loan with a maturity of 5 years. Currently, the main debate around the new Land Code is whether the agricultural land should be sold to foreign investors as well.

More than 60 percent of the surveyed households mentioned however that a maximum 50 percent of the food consumed by the household in a month is produced in the household, not a significant percentage though that would motivate the farmers to cling to their land.

5.3. Agricultural Life annuity Scheme

The Ministry of Agriculture and Food Industry of Moldova is currently debating an Agricultural Life Annuity Scheme project (ALAS) which aims to stimulate and speed up the process of consolidation of excessively fragmented plots in rural areas which impedes the employment of high technical equipment with the aim of ushering a productive farming of these plots. The scheme is particularly targeted at the elderly, who are over 65 years old, which constitute the largest bulk of small landowners and who don't have the knowledge and capacity to engage productively in farming the land. The land possessed by this group represents the bulk of land that can contribute to the development of competitive farms. As of 1st of January 2010, from the total agricultural areas of 2007,6 thousand hectares, 785 thousand hectares (or 39 percent) were rented (Governmental decision regarding the adoption of the project law Agricultural Life Annuity Scheme: Ministry of Agriculture and Food Industry²¹) while approximately 300 thousand of peasant households possess 480 thousands hectares with an average size of the household being 1.6 hectares, therefore these tiny plots including the plots that are left follow cannot be the guarantee the stability of the agricultural sector.

Table 5: The structure of the landowners' agricultural areas in Moldova, 2010

Rayon name	Age of the population 60- 65 years	The size of possessed agricultural area (hectares)	Average size (hectares)
Anenii Noi	1994	3413,33	1,71
Briceni	2667	3677,26	1,38
Cahul	6060	14154,3	2,34

20 Ministry of Agriculture and Food Industry of Moldova: <http://www.maia.gov.md/doc.php?l=ro&cidc=19&id=13611>

21 <http://www.maia.gov.md/doc.php?l=ro&cidc=49&id=14135>

Rayon name	Age of the population 60- 65 years	The size of possessed agricultural area (hectares)	Average size (hectares)
Cantemir	2255	4225,62	1,87
Călărași	1890	1797,66	0,95
Căușeni	2752	6031	2,19
Cimișlia	2940	6360	2,16
Criuleni	2880	3344,99	1,16
Dondușeni	3036	5130,84	1,69
Drochia	3542	5684	1,60
Dubăsari	139	173,4	1,25
Edineț	2199	3099	1,41
Fălești	14064	18514,79	1,32
Florești	2264	4323,48	1,91
Glodeni	7439	9357	1,26
Hîncești	17314	20681	1,19
Ialoveni	10149	12681,78	1,25
Leova	5387	10290,09	1,91
Nisporeni	1884	1943,36	1,03
Ocnîța	2659	3684,1567	1,39
Orhei	7747	9694	1,25
Rezina	4879	8984	1,84
Rîșcani	2015	2592,57	1,29
Sîngerei	1971	2433	1,23
Soroca	5907	7858,8	1,33
Strășeni	4681	4344	0,93
Șoldănești	2739	4424	1,62
Ștefan Vodă	2450	4468,85	1,82
Taraclia	5640	13234,36	2,35
Telenești	8241	10340,18	1,25
Ungheni	5850	7479,72	1,28
Găgăuzia	7979	19368,69	2,43
Chișinău mun.	1811	1203,4	0,66
Total:	155424	234992,6267	1,51

Source: Governmental decision regarding the adoption of the Project Law Agricultural Life Annuity Scheme: Ministry of Agriculture and Food Industry²².

The number of rural landowners who are older than 60 years represent 45 percent of the rural population and possess 12 percent (234,992 thousand hectares) of the total agricultural land (2007, 6 thousand hectares) which considering their age do not seem able and don't have the potential to

22 <http://www.maia.gov.md/doc.php?l=ro&cidc=49&id=14135>

undertake innovative agricultural projects, which is where the agricultural life annuity scheme comes in to address the challenge of excessively fragmented land highly dispersed in tiny plots around the country with the scope of consolidating them in efficient exploitations imposed by the necessity to establish a competitive agricultural sector. The objective of the agricultural life annuity scheme is to consolidate agricultural plots obtained in the privatization process of agricultural land as stipulated in the art. 12 of the Land Code no. 828-XII from 25.12.1991. Those who decide to sell or rent their plots to the local administration will be also eligible to receive the ALAS. For the 227,513 thousand hectares which are currently targeted by the ALAS project, the government will put aside approximately 25-30 million Euro. The project aims to be a safety net for old landowners who are not able to farm their land, bringing in the economic circuit agricultural plots which have been left fallow or have been used inefficiently by their owners.

The beneficiaries of the ALAS will be granted the equivalent of 100 EUR for every sold hectare of agricultural land and the equivalent of 50 EUR for the every hectare of rented land, which is rented for at least 10 years. Considering the project law which is planned to be implemented in Moldova, it is worth revising the implementation of a similar scheme in Hungary and Romania, delving deeper in the implementation experience of the latter two countries.

5.4. Agricultural Life Annuity Scheme in Hungary and Romania. A Comparative Perspective

5.4.1. Hungary

In Hungary, the National Land Fund, the body in charge with the operation of the agricultural life annuity, purchases agricultural land of at least one hectare but not more than 20 hectares in the maximum value of HUF 3 million compared to 10 hectares in Romania (Agricultural Life Annuity in Hungary²³). The amount of the annuity is calculated on the basis of 1.5-fold of the purchase price. Moreover, of the annuity paid is calculated on the age and sex of the entitled applicant²⁴ (See Annex 3).

Eligible applicants can pick their annuities in the first quarter of the next year to the year they submitted the application. Moreover, “all persons who rented donated or sold land starting from July 22 2005, the date when law 247/2005 came into force, can solicit the rent retroactively.²⁵” In 2008, through the law No. 77 of 8 April 2008, the scheme was extended to include individuals who are on a sick leave (I and II degree) and are not able physically farm the land, thus if they decide to alienate their land they are entitled to the same benefits as the elderly farmers. The annuity this way obtained cannot interfere in any way with the sickness pension the person is already receiving.

According to a field study conducted by Cartwright et al (2010) in the Bekes county in southeast Hungary, indicates that the scheme had a relatively marginal effect on land consolidation and efficient farming practises, managing to attract only a minority of old landowners. Moreover, no evidence was found of land acquired under the scheme to have been used for consolidation purposes. The study has also revealed that enterprises who rent the land from the state which acquired through the scheme are not content with the short-term contracts awarded by the state since this increases insecurity and prevents investments (Cartwright et al 2010). Since its implementation the program had constantly generated a deficit. The income collected by the state from the acquired land nowhere near covers the costs of the committed pensions; therefore the scheme in Hungary “can be considered principally a social welfare initiative rather than a policy for addressing structural weaknesses in land use markets” (Cartwright et al 2010, pg. 8).

23 Agricultural Life Annuity in Hungary: <http://www.tiszacash.hu/files/infolap/eletjaradekENG.pdf>. Last accessed 13.04.2009.

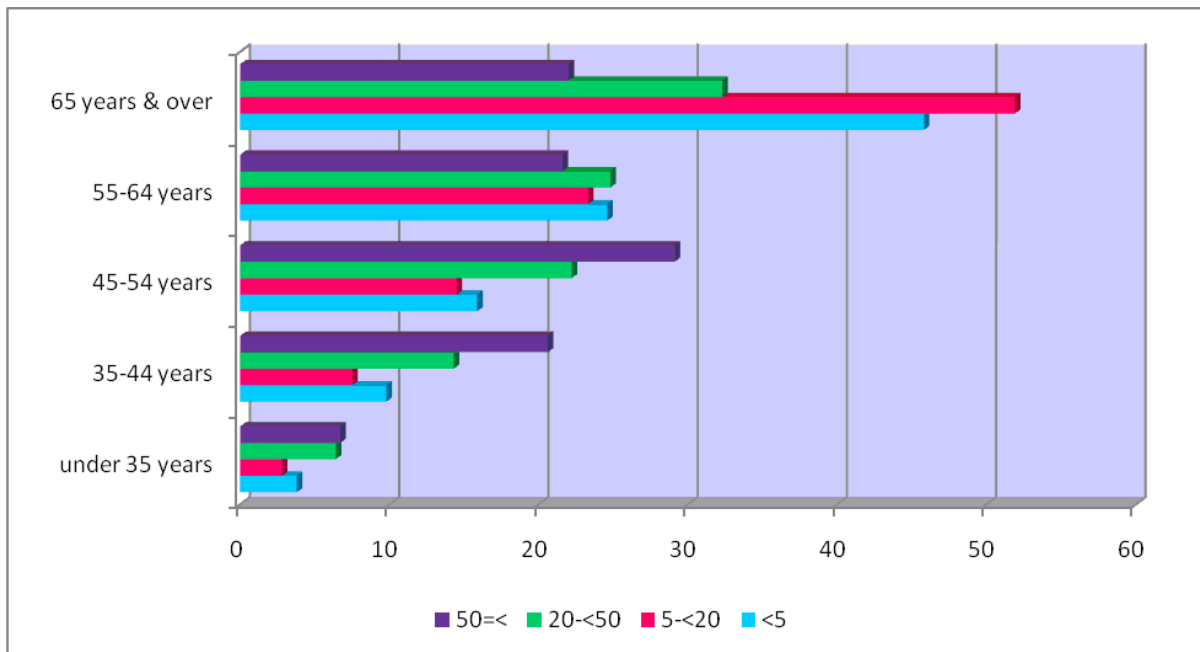
24 Agricultural Life Annuity in Hungary: <http://www.tiszacash.hu/files/infolap/eletjaradekENG.pdf>

25 http://www.publicinfo.ro/library/c_rentaviagera/pliant_romana.pdf

5.4.2. Romania

In 1989, only 14 percent of agricultural land in Romania was in private property, while at the end of 2002 this share increased to 96 percent (Rusu and Pamfil 2004). Thus, in 2005, before the implementation of law 247/2005 in the field of ownership and justice, there were 6 million of landholders and only 1.24 million of the agricultural holdings had an economic size of at least one ESU (European Size Unit) (FSS in Romania 2005, p. 1). Moreover, out of 1.22 million of sole holders, 71 percent were aged 55 or more, and only 4 percent were younger than 35 years while only 16 percent had another gainful activity as their major occupation (See Graph 1, FSS in Romania 2005, p. 1).

Figure 14: Main holders by age and size of the agricultural area in Romania (2005)

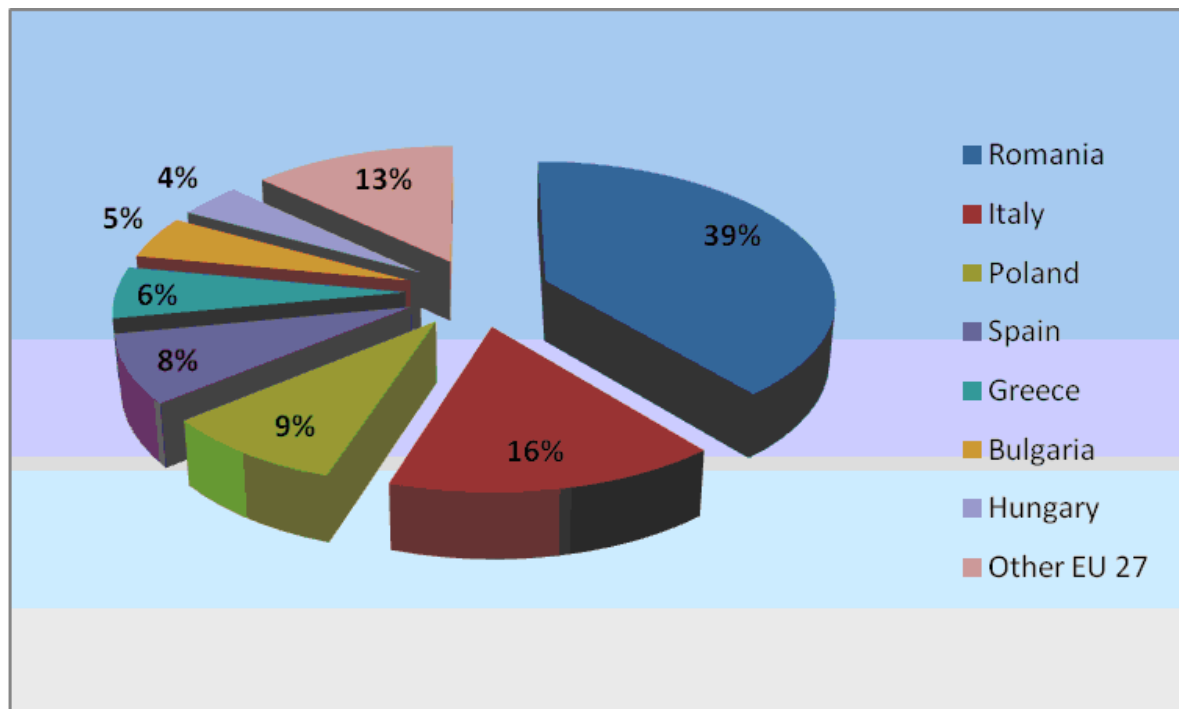


Source: FSS in Romania, 2005. Eurostat: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-07-060/EN/KS-SF-07-060-EN.PDF

Thirty nine percent of Romanian citizens aged over 65 own and farm agricultural land (See Figure 14) and 36 percent of the active population is involved in agricultural works, compared to the 15 percent average of the new member states (NMS) of European Union (Ghib 2008). Therefore, in order to concentrate small sized and scattered plots, the law 247/2005 introduced under the Title XI the agricultural life annuity in order “to concentrate the farming areas in efficient farms that are imposed by the necessity of modernizing the Romanian agriculture and to make it compatible with the agriculture from the other countries in the European Union” (Diaconu 2007, p. 80).

A Romanian landholder possesses on average 2.5 hectares of land and only 29 percent of the total number of agricultural holdings is at least one ESU²⁶ while 71 percent of the Romanian “farms” are under one ESU and work around 26 percent of the UAA (Utilized Agricultural Area) (Giurca 2007). Moreover, 80.93 percent of individual agricultural holdings produce mainly for their own consumption and only 16.52 produce mainly for direct sales (FSS in Romania, 2005, Eurostat²⁷).

Figure 15: Number of citizens aged over 65 years old who own and farm agricultural land (2007)



Source: Financial Week online, 2008. Available at: http://www.sfin.ro/articol_12718/bruxelles-ul_ingroapa_renta_viagera_si_agricultura_romaneasca.html

Usually the plots are either too small or badly shaped (Rusu and Pamfil 2004) which impede efficient agricultural works, do not represent an attractive offer for people willing to buy agricultural land (See Figure 16). For comparison with other European countries, the share of agricultural holdings of at least one ESU is 47 percent in Poland, 66 percent in Czech Republic, and 81.6 percent in Slovenia (See Annex 1: Farm Structure Survey, FSS 2007²⁸).

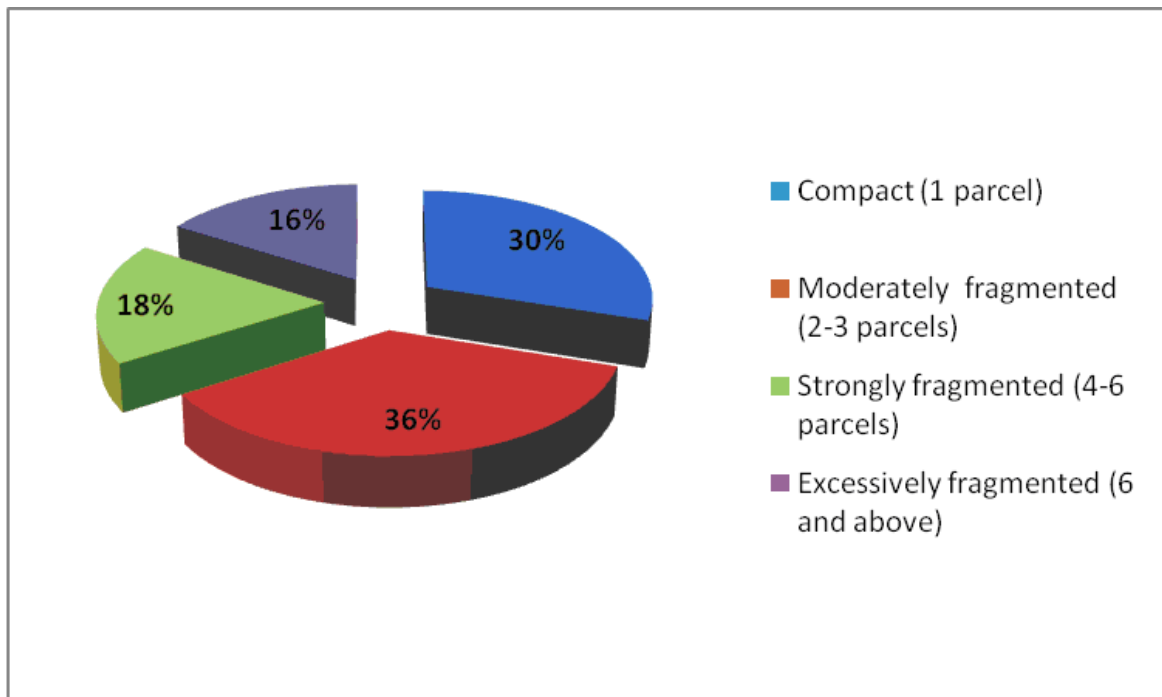
26 The European size unit (ESU) equal to 1200 Euro (Commission Decision no. 85/377/CEE).is the measurement unit of the economic size of a farm. The economic size is computed as the sum of the gross standard margins for each activity (in the case of vegetal cultures on hectares and in the case of animal farming on per capita animal), differentiated at regional level in order to include the specific development of the different zones. The gross standard margin is defined as the difference between the values of the output (production) obtained at one hectare or from one animal and the cost of the different inputs required in order to produce that output. Usually, the GSM is computed as triennial average in order to avoid the distortions induced by the prices or productions' fluctuations (Giurca 2007).

27 Farm Structure Survey, EUROSTAT. Available at: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-07-060/EN/KS-SF-07-060-EN.PDF

28 Farm Structure Survey, EUROSTAT. Available at: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-07-060/EN/KS-SF-07-060-EN.PDF

Most of the landholders willing to sell their land, do not reside in the area where the land is located: “the vast majority of landholders receive annuities for plots located in different counties,” mentioned Theodor Kilaiditis when referring to the risks posed by a potential decentralization of the Agency of State Domains²⁹. Those who want to rent their land have difficulties, in some counties, to find people who are willing to rent it. In this case, landowners can fill in a notification addressed to the local county, announcing that they are willing to sell their land. After that, all offers regarding available land for renting or selling are entered in a database that can be accessed online on the website of the Agency for State Domains (Agency of State Domains/ Announcements³⁰) or it can be requested by those interested at every local county council.

Figure 16: Individual households by degree of fragmentation (2004)



Source: General Agricultural Census (GAC), Romanian National Institute of Statistics 2004.

The process of consolidation, aimed at improving living standards in the rural areas, was particularly targeted at the elderly that constitute the largest bulk of small landowners and provide the main pool of land that can contribute to the development of competitive farms (Dawidson 2005, p. 630). The initiative was materialized in 2005, when the Ministry of Agriculture, under the leadership of Gheorghe Flutur, introduced the Life Annuity Scheme (LAS) to motivate senior landholders and later, physically unable farmers, to move out of agriculture through financial benefits and thus encouraging a better land allocation that would stimulate Romanian land market (Ghib 2008). Thus, every landholder who decides to rent or sell their land, gets an annuity guaranteed by the state of 50 Euros/rented hectare and 100 Euros for sold/hectare respectively. The annuity is payable yearly in national currency (RON), at the current rate of National Bank of Romania (NBR), in the first semester of the year. The life annuity

29 Agency of State Domains/Announcements: Available at: http://www.domeniilestatului.ro/index.php?option=com_anunturi_teren&Itemid=112

30 Agency of State Domains/Announcements: Available at: http://www.domeniilestatului.ro/index.php?option=com_anunturi_teren&Itemid=112

program is a structural policy tool that “acts on the dynamics of the structure and results from the reality of obstacles to land mobility and to the professional mobility of farmers” (Allaire and Dauce 1994³¹ cited in Ghib 2008, p. 3).

The National Annuity Scheme in Romania was initiated by the political alliance “DA” (National Liberal Party (NLP) and Democratic Party (PD)) with the aim “to enhance the transformation of the agricultural households into competitive commercial agricultural farms, and to consolidate and strengthen middle class in the rural areas” (Ziua, “Agricultural Life Annuity will die next year”³²). The legislative base of the National Annuity Scheme is the Law No. 247/2005, Title XI Law on Properties, Ministerial Order No. 1272/2005 and 748/2006, Governmental Ordinance 114/2006 and 158/2008 for amending National Annuity Scheme, Title XI of Law No. 247/2005 published in the Official Monitor, Part I, No. 784, 24.11.2008. According to the latter ordinance, some of the restrictions concerning land sales have been eased. Thus, the lessee can submit his application in any county, regardless of land location.

Based on the Law no. 247 of 19th July 2005 (implemented on 27th December 2005 with the publication of the methodological norms), the applicants for the LAS should be at least 62 years old, of any nationality, and must submit all necessary documents that confirm his/her ownership over land, a right obtained after the retrocession laws implemented between 1991 and 2005 in Romania.

The landowner can rent or sell up to 10 hectares, above this ceiling the plot is considered large enough for farming, and can keep a plot of maximum 0.5 hectares with the condition not to commercialize the products grown on the plot, since the scheme is targeted at landholders who perform subsistence farming. The 0.5 hectares ceiling was later removed by the governmental ordinance No. 158/2008. However, the law is lacunary in this sense, since it does not specify what happens to the landholders who retain more than 10 hectares. Moreover, the landholders who have no heirs, why they could not benefit from a farming life annuity if their land will anyway return to the state (Diaconu 2007, p. 80)?

According to the amendments made by the governmental ordinance No. 158/2008 for amending the National Annuity Scheme (Title XI from the Law No. 247/2005, published in the Official Monitor, Part I, No. 784, from 24.11.2008), the time limit of 30 days within the landholders must present to the local office of the National Office of Agricultural Life Annuities (NOALA) the continuity of the renting contract was also lifted. The amendment was necessary due to frequent changes in the law of renting which usually makes it impossible for landholders to present in due time the new renting contract at the local office. However, the contract should be signed within 30 days, though it can be submitted at a later stage, and should fulfil the goal of consolidation. Along with the application, the landholders must fill in a questionnaire specifying the relationship between the landholder and the lessee/buyer; the legal title of the lessee/buyer, and the future use of the rented/sold land. The land tabulation requirement on the new owner was also lifted, which demanded the land to be alienated and leased in an authenticable form according to all formalities specified by the law 16/1994, a costly procedure that deterred many potential renters since the responsibility of paying the registration and reviewing taxes falls with the renter (Law on renting No 16/1994, Article 6, paragraph 3).

NOALA was established within the Agency of State Domains that operates based on the law No. 268/2001 in the domain of privatization of commercial associations that administer public and private property with agricultural destination. NOALA is the body in charge with all activities regarding organization, leading, and control over the implementation of the legal disposals of the Life Annuity Scheme (LAS). The offices of NOALA operate in all counties and they record all fund holders and issue fund holder card for all citizens that alienated their land (Diaconu 2007, p. 81). The duties of the institution are settled by an order of the minister of Agriculture, Forests and Rural Development (Diaconu 2007, p. 81).

31 Allaire G., Dauce Ph, 1994, La preretraite en agriculture: un impact demographique et structurel certain, INRA Sciences Sociales, pp. 1-4.

32 Ziua, No. 4221, May 2 2008: <http://www.ziua.ro/display.php?id=236728&data=2008-05-02>

The controversies regarding national annuity scheme did not take long to appear. According to the real estate analysts, the scheme would cause fluctuations in land prices, especially in the regions where there are few landholders willing to sell their land and many of those who want to buy it, which could have led to a 40-45 percent increase in land prices (Romania Libera 2007³³). For example, it might be possible that the land prices might fall in the regions with traditional high land prices (e.g. Transylvania and Banat) and there might be a potential migration from west to east (e.g. Valsui and Birlad) of those who want to buy cheap land (Silvestri 2007, Romania Libera, “One hectare in Ardeal costs as 8 hectares in Moldova”)³⁴. Foreign citizens are not allowed to buy agricultural land in Romania, unless they have Romanian citizenship or they buy it for their agricultural associations registered in Romania. Foreign citizens own 18 percent of agricultural area in Romania (Silvestri 2007, Romania Libera, “One hectare in Ardeal costs as 8 hectares in Moldova”).

Another fear referred to the taxation of the rented land by the Agency of State Domains “which can discourage some farmers from renting the land; therefore it can impact significantly on the profitability of the scheme” (Emil Giurgiu, The Chair of Real Estate Commerce Chamber, 2007).³⁵ Some real estate specialists are quite pessimistic about the effectiveness of the scheme to consolidate large shares of land since there are few landholders who have adjacent plots and who are willing to sell or rent their land and qualify at the same time for the scheme.³⁶

A heated debate started in September 2008, when the Romanian government received the decision of the European Commission regarding the implementation of the National Annuity Scheme. The Ministry of Agriculture and Rural Development (MARD) notified the European Commission about the programs it will finance after the European accession until 2009 mentioning the National Annuity Scheme started in 2005. The Romanian government mentioned that elderly persons aged 62, who have taken the step of selling or renting their land run the risk, as of 2010 of losing what has become their main source of income since this payment should be stopped according to the European Commission (European Parliament, Parliamentary questions³⁷, 2008). Thus, it asked the Commission what measures it envisages for this problem in order to continue the financial aid granted to people who contributed to the process of land consolidation, to which the Commission replied:

“The Romanian Rural Development Programme (RDP) for the period 2007-13 foresees that the early retirement scheme will be introduced in 2010 into the RDP among the measures of axis 1 intended to increase the competitiveness of the agro-food sector. Romania decided the later introduction of this measure in the RDP in order to carry on the existing national annuity scheme until when it will be discontinued. In order to set the relevant eligibility conditions of the early retirement scheme and to reallocate the financial resources a modification of the recently adopted Rural Development Programme is required. For this purpose, consultations between the national authorities and the Commission will start in due time³⁸ (European Parliament, Parliamentary Questions 2008). “

However, the Commission has informed the Romanian government that these annuities should be considered state aid, specifically for the agricultural associations who farm this land from the citizens

33 Romania Libera 2007: <http://www.romanalibera.ro/articol-Un-hectar-in-Ardeal-costa-cat-opt-in-Moldova-87753.htm>

34 Romania Libera 2007: <http://www.romanalibera.ro/articol-Un-hectar-in-Ardeal-costa-cat-opt-in-Moldova-87753.htm>

35 Romania Libera 2007: <http://www.romanalibera.ro/articol-Un-hectar-in-Ardeal-costa-cat-opt-in-Moldova-87753.htm>

36 Romania Libera 2007: <http://www.romanalibera.ro/articol-Un-hectar-in-Ardeal-costa-cat-opt-in-Moldova-87753.htm>

37 Written question by Constantin Dumitru (PPE-DE) to the Commission, 30 July, 2008

38 Answer given by Mrs. Fischer Boel on behalf of the Commission, 22 September 2008

rented or sold via the LAS. Thus, the central idea of the state aid is that the recipient, in this case the agricultural association, “gains a financial advantage directly or indirectly, over its competitors” which is considered to impede fair competition at the Community level (Craig and de Burca 2008, p. 1089). Based on the state aid definition, the current scheme must fulfil the following conditions: 1) the aid must “confer and advantage on the recipient”; 2) “the advantage should be granted by the state or through state resources” thus here also included advantages offered by a regional or central body, or a public/private institution established by the state; 3) “the aid should distort or threaten to distort competition by favouring certain undertakings or the production of certain goods; and 4) the final element “is that there should be an effect on inter-state trade” (European Commission, Articles 87 and 88³⁹). Worth mentioning is that is not necessary for the Commission to prove that trade will be affected; it is sufficient that trade/competition might be affected. The Commission advised Romanian government to cease the scheme as of 1 January 2010. The scheme is believed to be distorting competition and favouring national undertakings, since the law on rent, No. 16/1994 specifies that only Romanian citizens and Romanian legal entities, with partial or whole foreign capital, regardless of their residence, can be renters (Article 1, paragraph (2), and (3)). Additionally, the renters must possess special agricultural knowledge, certified by the Romanian Ministry of Food and Agriculture while legal entities must have agricultural works as their main object of activity (Law No. 16/1994, Article 1, paragraph 3).

On 1st of January 2010, 3 years after the accession to the European Union, Romania ceased the scheme as it cannot offer any longer state aid which is not in conformity with the legislation approved by the European Union; therefore the national office of Agricultural Life Annuity of the agency of State Domains ceased the receipt of new applications for Agricultural life annuity from 1st of January 2010 through the ordinance no. 17/2010⁴⁰. The agricultural life annuity was included in the state aid which could have been offered for a period of transition of 3 years. There were 95.147 farmers enrolled in the program while 360.000 hectares were covered through the scheme. The ALAS was replaced by Measure 113, The Early retirement Scheme for farmers which will receive from the state 72 million EUR for its implementation.

Despite a large dissemination campaign targeted at potential applicants⁴¹, the most invoked reasons of landholders’ reticence were insufficient information about how the scheme really works; moreover, lingering disputes regarding property rights, transaction costs, and complex transmission rules were often invoked as the main impediments for the land market development (Ghib 2008).

6. Conclusion and Recommendations

The results obtained a more pessimistic picture of rural areas regarding land use, investment and quality of life. Although the results of this study should be treated cautiously due to the small size of the sample, it underlines that migration has become a life strategy and a lifeline especially in rural areas which saw large flows of its citizens leaving for work abroad. The propensity to migrate does not depend on the marital status or dependants of the migrant and thus underlining the significance of migration as a coping strategy.

39 The EC Treaty to State aid to small and medium-sized enterprises active in the production of agricultural products.

40 http://www.rentaviagera.ro/onrva_pub/images/stories/ordonanta_de_urgenta_nr_17_din_05.03.2010.pdf

41 http://www.publicinfo.ro/library/c_rentaviagera/pliant_romana.pdf

Rural out migration and depopulation has changed the structure of the agricultural production with more agricultural areas allocated to crops which require minimum resources and have guaranteed markets, such as wheat, corn and sunflower, and less areas covered with intensive crops, such as tobacco and vegetables. The area covered with agricultural crops both on peasant farms and on kitchen plots decreased over time especially on peasant farms, while the area planted with fodder plants almost doubled (from 2.5 percent in 2004 to 4.2 percent in 2008). At the same time the areas covered by perennial crops such as vineyards increased by 4 percent on peasant farms and 5.3 percent in individual households.

Migration accelerates the decline of the agricultural sector as migrants and their members reduce the amount of land cultivated and invest less in new agricultural equipment or in productivity-enhancing technologies; instead, they are using remittances to move out of agriculture by leasing parts of their land. Although most of the households mentioned to have received remittances from members of the family or relatives, only 11 percent were able to save part of their income while none of the respondents mentioned that they could invest the savings to buy houses or apartments in their village or other urban areas and none bought land under construction, or land for rent. Asked where the family is keeping its savings the majority (63.6 percent) answered that these are kept at home and just 9.1 percent keep their savings at the bank. A substantive proportion of 59 percent appreciated their income as insufficient to cover primary needs, 33 percent estimated that their income is sufficient to cover only primary needs, and just four percent appreciated their income as sufficient for a decent life.

The most popular form of land transaction among the respondents is renting. Worth mentioning is that the area of agricultural land rented for longer than 3 years is very limited. Such a short renting period is beneficial for cooperatives and other agricultural companies since it ensures profits and discourages these investing or preserving the quality of the rented land, and as such is in the detriment of the lessor. The introduction of the agricultural life annuity scheme might prove beneficial and convince the landowners to rent their land for a longer period of time. The reticence to sell the land might stem from the fact that the value of land in Moldova is very low compared to the price of the arable land in other European countries. Moreover, there is no real demand for arable land in rural areas, due to the low price of agricultural products and the difficulties met by every farmer to commercialize its agricultural products; lack of appropriate technical equipment to farm the land; lack of a solid credit system in the rural areas, and other problems posed by the unfinished regulations that would enable the implementation of a mortgage system for arable land. The price of land could be also a caused by the lack of reliable information regarding the genuine value of the land, or in other cases deliberate underestimation of the price to divert notary taxes and taxes related to the registration in the land registry.

Rural migrants are usually involved in long-term international migration, due to legalization hardships in destination countries are less able to return home and engage in agricultural activities. Anecdotal evidence suggests that these have entrusted their land to relatives for work, considering the entrenched stigma associated with leaving one's land follow. Other returned migrants pressured by the departure time sell their land usually striking very cheap deals. As the financial crisis hit, many expected large waves of Moldovan migrants to return home however only a few decided to return to secure their savings abroad while a large share of migrants chose to put up with slashed number of working hours and instead chose to wait for the recession to recede. The entrepreneurship mood is gloomy both among migrants and those who stayed behind. An overwhelming percentage of 89.2 percent of households had never have a family business and neither plan to start one while two percent of the households have currently a business. None of the rural migrants surveyed invested their remittances in land acquisitions.

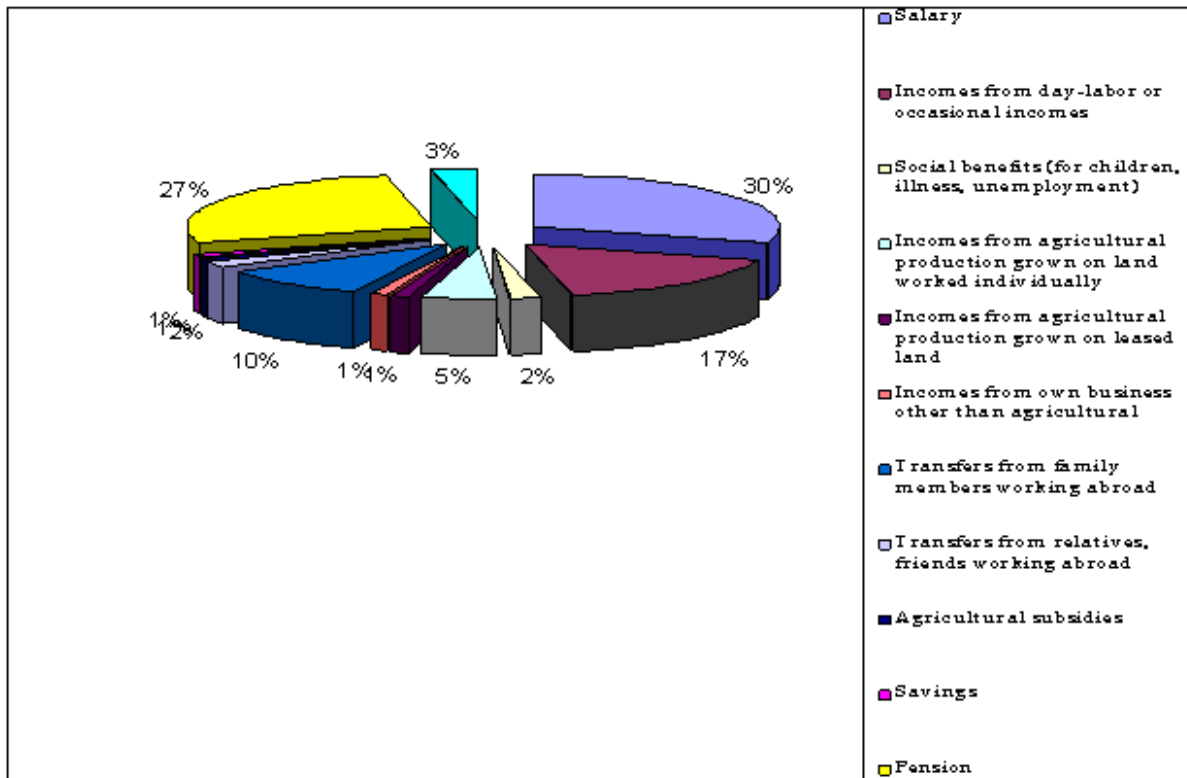
Current political uncertainty and social situation worsen further the prospect for reform and sustainable development. Rural migrants are not yet convinced that their villages will secure sustainable rural income and current migration trends point that numerous migrants are leaving the country for good, with more and more people leaving and reunifying with their family members abroad.

There are numerous programs implemented by the state which target young agricultural entrepreneurs and foreign aid scheme aimed to engineer Moldovan agricultural sector. The state must embark on a more assertive information campaign aimed at informing rural entrepreneurs about renting/leasing opportunities, other existing means of exchanging land, and related technicalities such as renting terms and afferent clauses. Main priorities shall remain the establishment and innovation of the agro-industrial complexes in villages, investing in the creation of optimized agricultural enterprises equipped with modern equipment capable to produce competitive and quality products destined for export but also for substituting current imported agricultural products. The main impediment of the development of efficient private producers is the lack of connection with processors and external markets; moreover due to the distortion of the internal markets, agricultural producers commercialize their products at a much lower price than the actual price of the products which as result in fewer resources invested in the improvement of processing technology and other modernization processes that would contribute to a better quality of their products. One must consider that the effectiveness of agricultural production does not depend solely on the size of the land but on the qualification of the landowners involved and available resources to be invested. The initiatives undertaken in the framework of SEDPR (SCERS - Strategy of Economic Development and Poverty Reduction) shall be further pursued in the domain of irrigation, rural infrastructure, and agricultural trade.

A special focus must be maintained on the development of off-farm activities in rural areas to be established in the framework of current national plans of regional and rural development. The government must promote durable economic development via supporting and encouraging private initiatives and simplifying legislative framework towards creating a favourable investment climate. There are numerous accounts of returned migrants who have been disillusioned by the administrative hardships and red tape and chose to re-embark on migration.

The land consolidation reform shall be implemented considering the experience of the neighbouring countries which were confronted with similar problems. The agricultural life annuity scheme is a promising undertaking aimed to address a set of problems faced by the rural landowners which will lead to the establishment of viable agricultural enterprises. However, as Romania's experience shows, potential problems such as lingering disputes regarding property rights, transaction costs, and complex transmission rules might come up during the implementation process as the main impediments of the agricultural life annuity scheme and for the land market development in general. A successful implementation will be attained through facilitating the development of land markets and promoting renting and leasing contracts among interested parties. Moreover, the state should be also cautious not to turn the policy into a social welfare initiative which as such might fall short of addressing the very weaknesses of the land use markets. The policy must be guided by clear framework of operation that pinpoints the origin of the resources to be used to cover the annuities and have a clear from the onset of the project idea what it intends to do with the acquired land. Moreover, the terms of the contracts concluded with potential interested entrepreneurs must not deter them from long-term investments. The policy should be weighted carefully taking into account the experience of neighbouring countries and making sure that this it is widely publicized and understood by those taking part into the scheme.

APPENDIX



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