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Junior Davis and Adriana Cristoiu[1]

Abstract

The radical changes that have occurred in the Romanian economy during the last decade have created new pressures on the country's rural areas. Increasing industrial unemployment generated an urban-rural migratory flow of the population. The collapse of the agri-industrial processing and industrial sector increased rural unemployment. Since 1991, land reform has also generated new relationships in rural areas, and a massive redistribution of land. However, agriculture continues to function inefficiently, and is unable to provide a decent and sustainable standard of living for most rural inhabitants. Therefore, many donors and multilateral agencies are focusing on the potential of the rural non-farm economy (RNFE) and more specifically, Non-Farm Diversification (henceforth NFD) to reduce rural underemployment. NFD through the development of the RNFE may also provide means of increasing rural incomes, assist the improved utilisation of locally available resources and promote a better standard of living for rural population through enhanced non-farm employment opportunities and growth. There are several reasons underlying the rural poor' decision to diversify: low on-farm incomes or returns on labour, the existence of a surplus of resources (land, capital, labour or knowledge), as a strategy to spread risk, or to smooth the impact of the fluctuations in a unique source of income (e.g. agriculture). The present paper relies on community-level data from a survey conducted in two Romanian Counties, Dolj and Brasov, to analyse the main determinants of NFD in rural areas. The main findings are placed in a national context and policy proposals are advanced.

Introduction

Presently, rural Romania comprises *2,685* '*communes*'[2] *(i.e.* 12,751 villages); about 65% of its rural population are affected by poverty, and 4.2 million private farmers survive by practising subsistence agriculture (Gavrilescu and Giurcă, 2000:353). Consequence of the communist era and the systematisation policy of the late 1980s, more than 45% of the rural population presently live in villages with poor housing and living conditions such as potable water, and with limited access to elementary health, education and information services (Rusu, 2000). Under communism, rural policy translated into the most productive members of the labour force being pushed to urban areas through forced industrialisation policies, neglect or at best low rates of investment into rural infrastructure, and the enforced collectivisation of peasant farms.

The 1991 Land Reform, brought about by the initiation of economic restructuring policies as part of the transition to market economy which began in 1990, was the major event that

initiated the re-definition of social and production relations in rural Romania. In the context of high macroeconomic imbalances, inflationary pressures and increasing rate of industrial unemployment, combined with land restitution to non-rural inhabitants, an urban-rural migratory process occurred (especially between 1996-1999), which placed additional pressure on rural areas. However, the poor rural infrastructure, under-developed rural services network and limited opportunities for employment encouraged the most skilled of these workers to seek employment abroad whilst limited access to rural financial facilities kept the rate of investment in rural areas low.

At the regional level, there are still significant differences in both agricultural potential and the development of rural infrastructure. According to these criteria, the North-eastern region is the poorest in Romania while the west and those neighbouring Bucharest are considered the most affluent regions (Vincze, 2000). The location and geographical divers structure of the country heavily influence both soil quality and weather conditions. Only 25% of Romanian soils have good production potential and it is estimated that less than 4 million hectares of land (of 9.3 million hectares of arable land) are suitable for practicing a sustainable and efficient agriculture (Toma, 2000:3). Such phenomena as erosion, soil acidity, salinity, periodic droughts and/or excess humidity affect the rest of the land while the low amounts of chemical and natural fertilisers applied over the last two decades have reduced the soils natural fertility. The Southern Romanian Plain is very suitable for cereal production; however irregular annual rainfall, frequent droughts and destruction of the irrigation system during the early 1990s resulted in large variations of the agricultural output and increased the vulnerability of those households which rely on agriculture as main source of income. On the other hand, households' livestock production is mainly located in hilly and mountainous areas where forestry and wood processing are important income generating activities in the local economy.

With the suppression of private property rights and private initiative in rural areas, another consequence of communism era is that agriculture remains the main activity of the rural population. The rural services previously provided through a state and co-operative network proved being inefficient after 1990 and most of them collapsed. Presently, the rural small non-agricultural private enterprise sector is slowly developing, but remains hampered by low skilled human capital endowment, limited access to financial services, and major investors' preference for regions with a more developed infrastructure.

It is hoped that the development of a robust rural non-farm enterprise sector will reduce rural underemployment, make better use of locally available resources, improve rural incomes, and promote a better standard of living for the rural population. There are several reasons underlying the rural poor' decision to diversify: low on-farm incomes or returns on labour or capital, existence of a surplus of resources (land, capital, labour or knowledge), as a strategy to spread risk, or to smooth the impact of the fluctuations in a unique source of income (e.g. agriculture).

The present paper relies on community-level data from a 2000 Survey in two Romanian Counties, Dolj and Brasov, to analyse the main determinants of NFD in rural areas. Our survey included data on 74 non-agricultural enterprises and a county baseline survey of natural, economic and social conditions of the villages where the surveyed enterprises are located[3]. On this basis, the economic activities of rural households, enterprises and patterns of non-farm diversification may be accurately described and interpreted. The paper is organised as follows. The first section summarises recent agricultural sector and macroeconomic developments in Romania. The second section outlines theoretical approaches to non-farm diversification in a transition economy context. The main determinants of non-farm diversification are then discussed in the context of the rural economies of the surveyed counties (Brasov and Dolj). Finally, the main findings of the paper are placed in a national context and RNFE policy proposals are advanced.

1. Romanian Economy during Transition

1.1. Macroeconomic and Agricultural Sector Developments

In 2000, Gross Domestic Product (GDP) increased by 1.6 per cent, together with a decline in the rate of inflation compared to 1999. Some policy makers hoped that these were the first spring shoots of a long awaited economic recovery in Romania. Unfortunately, this already seems unlikely and it is possible that a further deterioration of living standards and increased poverty (in the short run) could occur. The decline in the rate of inflation was a positive development, however a rate of 40.7% for 2000 was well above the average for most transition countries (EBRD, 2000). If we consider that the 3.7% rate of inflation for January 2001 represented the highest rate recorded for the previous six months, it will be very difficult to achieve the Government's forecast annual inflation rate of 27% for 2001. Similarly, agricultural output declined with 14.1% in 2000 as compared to 1999. This had a negative impact on farm incomes whilst urban consumers faced higher meat and milk prices due to the dramatic decline in livestock herds. It also had a disastrous impact on the financial performance of meat, milk and animal processing firms. Some of these firms have ceased production due to the lack of raw materials, others face bankruptcy while a few have recently decided to re-orient their livestock production towards high-export value livestock (e.g. ostriches). The value of services in 2000 was 92.4% of its 1999 value. The rate of unemployment in 2000 was 10.5% and for January 2001 was 10.8% while the public debt service was 6.5% of GDP for 1999. Under these conditions, there is tremendous demand for adequate poverty alleviation programmes and policies, particularly in rural areas.

Table 1. Macroeconomic Indicators 1995 – 2000

	1995	*1996*	*1997*	*1998*	*1999*	*2000*
	Percentage change					
Real GDP Growth	7.1	4.1	-6.1	-7.3	-3.2	1.6
Industrial output	9.4	9.9	-5.6	-17.3	-8.8	-3.8
Agricultural output	4.5	1	3.4	-7.6	5.5	-14.1
Inflation (end of year)	27.8	56.9	151.4	40.6	54.8	40.7
	In millions of US $					
Current account	-1,732	-2,811	-2,338	-2,917	-1308	na
Trade balance	-1,685	-2,494	-1,980	-2,625	-1,092	na
Foreign direct investment	417	283	1,267	2,079	949	na
	Denominations as indicated					
GDP per capita (US$)	1,243	1,290	1,395	1,845	1,517	na
General government balance (% of GDP)	-2.6	-4	-3.7	-3.3	-2.7	na
Share of agriculture in GDP (%)	19.8	19.1	18.8	14.5	13.9	na

Share of industry in GDP (%)	32.9	34.2	35.6	27.5	27.8	na
Unemployment (% of labour force)	8.2	6.6	7.4	10.4	11.5	10.5

Source: EBRD Transition Report (2000).

Government borrowing remained high, with budgets inflated by redundancy payments to workers dismissed from loss-making state-owned enterprises (SOE). During the period 1996-1999, the government has managed to reduce the budget deficit from 4.0% of GDP to 2.7% while Gross Agricultural Output (GAO) has been fairly stable with the exception of 1992. In 1998 GAO was just 2% lower than in 1990, despite significant worsening of the terms of trade during the period (Davis and Hare, 1997). Indeed, unlike most other Central and Eastern European Countries (CEECs) except Albania, agricultural output in Romania has recorded only a small decline during the transition period. Until 1996, this was mainly due to a relatively high degree of support for agricultural production.

The share of crop production in total GAO has fluctuated annually during the transition period (between 53% and 63%). The fluctuations were mainly due to weather conditions (especially erratic rainfall), to which Romanian farmers have become more sensitive with the decline in fertiliser and pesticide use and other technologies[4]. Other factors, which have exacerbated this situation, are changes in input/output prices, the impact of land reform and the collapsing irrigation system. Overall, average crop production in 1998 was at about the same level as in 1989, but changes in the volume of production differed across commodities. The structure of crop production has been strongly influenced by the land reform and the emergence of several million small-scale (largely subsistence) farms so that the latter ones oriented on crops with relatively high-labour low-mechanical technology requirements.

The main vegetables produced in Romania are melons, tomatoes, cauliflower, root vegetables, garlic and cabbages. Compared to the pre-reform period the area allocated to fruit and grape production has not changed substantially (Davidovici et al, 1998:131). The area sown with vegetables fluctuated, but since 1998 has been around 20% lower than in 1989. Approximately 90% of vegetable production are grown by small household plots and are mainly used for self-consumption and sale on local markets. General problems for fruit producers arise from a lack of finance for the renewal of trees and for purchasing inputs together with a still reduced ability to fulfil the export market requirements. The domestic production of fruits and grapes covers domestic demand whilst wine during the period 1990-1999 has become an important export product to the European Union (EU). Livestock sector production has also fluctuated and in 1998 was around 12% lower than in 1989, with a share in total GAO that varied between 34% and 46% (Davis *et. al.*, 2001). The declining trend in livestock production in recent years has been caused by several factors including: transitional problems due to dissolution of co-operatives specialised in livestock production; poor/obsolete production buildings and equipment; inefficiency of the upstream sector (generating a price scissors unfavourable to farmers) and downstream

sector (passing its high production costs onto producers and consumers); the slow process of adapting marketing systems to the new land ownership pattern.

In addition, the decline in the size of the herd is a consequence of: a) the uncontrolled cull of animals in the early '90s, b) failure of the large industrial-type of livestock production in state farms and their supply-sales network collapse) (including the closure of industrial production units of concentrated forages (so called Fabrici de Nutreturi Combinate (FNC) – in *'free-translation'* Factories for Combined Forages); c) redistribution of the land ownership (that increased the Livestock Units per Unit of Land[1]; d) monopolistic power (at least at the beginning of the 1990s) of state units in the downstream livestock processing and sales chain; e) consumer-protectionist agricultural policies (including low farm-gate price) that penalised livestock producers (see also Davidovici et al., 1998: 25). As a result, livestock numbers have declined and small-scale private farmers have adjusted livestock number to their household consumption needs and forage availability.

1.2. Background to Brasov and Dolj Counties

The summaries of the historical background to the RNFE mainly focus on two communes: Rotbav in Brasov and Motatei-Gara in Dolj. Most of what is presented in this section is based on a series of household level and key stakeholder interviews conducted during November 2000 to March 2001 (see Bleahu, 2001; and Davis and Gaburici, 2001). We would argue that these villages are typical of much of rural Romania and explain some of the different types of rural non-farm enterprise and employment that have subsequently developed; much of it a return to pre-communist activities and trades.

1.2.1. Brasov County[5]

GOSTAT (the state agricultural holding) that was to become the state-owned farms (IAS)[6], was created in 1950 through the expropriation of the land belonging to the large landowners and the Royal Crown. The IAS existed in Feldioara until 1960, and then the farms from Feldioara and Rotbav were allocated to the IAS from the Prejmer commune. In 1989 in Romania were 411 IAS, cultivating 28% of the arable land.

Agricultural Production Cooperatives (APCs[7]) were created in 1950 in Feldioara and in 1951 in Rotbav. In 1961 the two APCs merged. Locals would tell how collectivisation was imposed by force and about the attempts to resist to it[8]. In Rotbav at least 30 families created a parallel association by drawing-up a list of the people who were formerly members of the independent association and worked their land independently. After a long period of intimidation, in 1962 some of them agreed to join the APC. However, 8 families from Rotbav refused systematically to enter the APC. All these families were eventually either shot or persecuted, the men were arrested and imprisoned and children were barred

[1] (a Livestock Unit (LU) is defined by FADN as a cow of 600 kgs producing 6000 litres of milk per year; there are some conversion ratios for the other types of animals into livestock units); Unit of Land means one hectare).

from local schools and decent jobs (Bleahu, 2001). APC enjoyed prosperous times during the 1960's, with good growth in livestock and crop output.

During the same period successive waves of immigrants came to Rotbav. Most of the immigrants were war veterans to whom land had been given or inhabitants coming from poorer regions of the country (e.g. following a serious famine in 1947, many inhabitants of Moldova migrated to different parts of the country). There were also two families of Romanian refugees who came from Basarabia (presently Republic of Moldova). Some of the immigrants moved into the houses of the Germans who had their assets expropriated following the Second World War[9]. In most cases the new immigrants received land (some of which was previously expropriated from ethnic Germans) and the right to build houses on it[10]. There are also examples of long cohabitation between the Romanian and the German natives, sometimes even in the same courtyard. After 1960, when Germans began to emigrate, their houses were confiscated by the state and afterwards rented. In 1969 the construction of a uranium factory in Rotbav brought about a new wave of immigrants. On the other hand, the development of large heavy industrial enterprises in Brasov as *Tractorul* and *Steagul Rosu* triggered the departure of young people to the large urban centre. The modern amenities in the newly built housing areas of the city attracted a large number of young families and the number of people running a commuter transport service grew so that around 1,000 people were commuting daily from Feldioara and Rotbav to Brasov for work. During the 1980's the state placed Rotbav on a list of villages that were to be systematized[11] and ever since the level of investment in the village has decreased continuously.

The 1989 Revolution brought significant changes in the lives of the inhabitants of Brasov County with land reform, de-collectivisation, and broader socio-economic change. The *major land reform* began with the 1991 Land Law which was initially driven by social equity rather than economic grounds and led to an excessive fragmentation of ex-APC land[12]; recently issued Lupu's Land Law (2000) regulates the juridical, managerial and ownership rights on former IAS lands.

Dismantling the IAS. The restructuring of the economy and bad management caused the local IAS to reduce its activities and make several employees redundant. It was a major blow for the people who never had land in the village and were employed by the IAS. The villagers whose land was expropriated by the IAS concluded a 5-year agreement with IAS administrators.

The local CENTROCOOP[13] reduced its activity, affecting the local non-agricultural incomes while the networks for agricultural products acquisition and inputs distribution closed down or changed the range of services they provided. As for *the labour force*, three major migratory flows occurred: a) mass emigration of the German minority to Germany and of younger population for work in Germany and Italy; b) return migration (many rural and urban "shuttle"/commuter workers in Brasov enterprises were made redundant, which led to a urban-rural migratory drift and a re-orientation, at least temporary, towards

subsistence agriculture and local traditional non-farm activities); and c) immigration of the urban population (after 1990 around 30 houses in Rotbav vacated by the local Germans were bought by families from Brasov, some of these houses became holiday homes). The *local industry* also has undergone restructuring*:* the local brick factory was sold, re-equipped, and reduced its personnel as well as the uranium factory which also reduced its activity due to a lack of demand from its main market, Russia. *The social structure* was affected by a lower quality of health and education service provision due to the departure of qualified personnel, deepening of poverty for most villagers. The religious life diversified with the growth of Pentecostal and Evangelist churches. The migration of young people determined by the lack of job opportunities and poor rural infrastructure induced the ageing of the remnant population.

1.2.2. Dolj County[14]

In Motatei the railway station was built in the 1870's and was intended to serve the cereal exports of local farms. Under communism, Motatei Gara was created by the expropriation of land belonging to the local aristocracy and landowners (e.g. Sladoveanu, Purcarete, Ionescu) and allocated to war veterans from Motatei or other adjacent communes (often through land changes among the latter ones)[15]. During the communist period major investments were made in the area, which meant increased employment opportunities and attraction of new inhabitants. About 95 per cent of the inhabitants of Motatei-Gara were state employees. The Rompetrol Company (the state-owned enterprise (SOE) supplying natural gas and petrol), with a warehouse of wood, coal and fuel-oil was situated near the railway and used to provide the entire area with fuel. There was also a furniture warehouse, which was a subsidiary of a furniture factory from Calafat.

In the 1950's a local agricultural production co-operative arose as a subsidiary of APC Motatei. During the 1960's an IAS with mixed arable, livestock, fruit and vegetable production specialisation was established. Irrigation systems were also created, as well as a station for the mechanisation of agriculture (SMA)[16]. During the communist period most of the active population were state employees, some of them in agriculture, but the majority were employed in industry and services (Peco, furniture warehouses, SMA, cereals warehouses). A small number of women, used to commute daily to Calafat' working at the weaving factory.

The events of 1989 brought significant changes to the lives of Dolj residents. *The land reform* and the *dismantling of the local APC* enabled most people to receive nearly the same amount of land they owned prior to collectivisation (often on the same locations). The reduction in the activities of the IAS meant the loss of jobs not only for the permanent employees but also for part-time workers, especially women. The irrigation system was severely affected and dismantled not through always-orthodox methods. Hundreds of tonnes of pipelines were dug out and sold as scrap iron. Some of our interviewees noted "*The manager himself cut off thousands of pipelines*", which was evident of much of the "spontaneous privatisation" practices which characterised the literal asset stripping which took place across central and eastern Europe on many former collective and state farms.

The destruction of the irrigation systems resulted in a significant decline in crop production (down 50 per cent) in this county. *Reduction of the local services network* implied that the agricultural product marketing and input distribution network collapsed while the CENTROCOOP reduced its activity, thus the number of jobs available for village inhabitants. For farmers with sufficient cash or access to rural finance, some of the services would subsequently be provided by entities such as Romcereal[17] and Semrom, but the vast majority of poorer farmers did not have access to their services. Regarding the *labour force,* a reversed urban - rural migration flow occurred as many workers from the Calafat factories were made redundant. At the same time, young people migrated for work abroad, Italy being a preferred destination as the young people from the village who were already working there vouched for newcomers. *The local industry* has undergone severe restructuring. Comcereal became a private company, dismissed over 100 employees and only 5 watchmen kept their jobs. The solid fuel and furniture warehouses were closed down. Due to a lack of demand on their main markets in the CIS the weaving factory in Calafat was closed down and this also increased the number of unemployed population. *Social changes* translated into a continuous decline in the quality of health and education services, mainly due to the departure of the qualified personnel. As a general conclusion, most of the rural inhabitants have faced a deepening of poverty level.

Clearly significant changes have occurred in the livelihoods and employment activities of the surveyed communities during transition. Recent investigations of the current RNFE situation in Romania, has provided a complex picture of different types of employment/income generating activities undertaken, distribution of time and income between activities, motivations, barriers and prospects (Bleahu, 2001; Davis and Gaburici, 2001). These differences need to be interpreted in the context of the current stage of reform and economic development reached in both the rural sector and economy wide. The differences in activities and context will also imply different potential growth and diversification patterns that we discuss in the next section of the paper.

2. Theoretical approach to the process of non-farm diversification

Based on the peasant economics theory, when analysing the process of non-farm diversification one can identify two principal components: income and activity[18]. The income-driven non-farm diversification hypothesis assumes diversifiers are profit-maximisers while the second, activity-driven non-farm diversification points on the different comparative advantage of household members as underlying incentive for non-farm diversification (Ellis, 1993: 65-81; 123 - 146). Thus, two types of non-farm diversification may be defined: the first, *income-driven* diversification, coincides with a period of capital accumulation (including financial, social and information capital) while the second type, *activity-driven* diversification often occurs later, when the afore-mentioned capital accumulation has already taken place[2]. However, this does not have to be regarded as being sequential, as the type of non-farm diversification may vary with different households. Therefore, although income maximisation is often the main reason for diversification, other stimuli for non-farm diversification cannot be dismissed[19].

To identify which of the two non-farm diversification drivers are most prevalent at the communes level, which are the subject of this present study, two ratios might be proposed. First, income-driven diversification may be quantified by the ratio:

$$DII = \frac{\sum \text{NAI}}{\sum \text{TI}} \cdot 100 \qquad [1]$$

where

DII = Diversification Index (income-driven)
NAI = Non-Agricultural Income
TI = Total Income

Here a value of 100 would imply that income is wholly diversified outside agriculture (i.e. agricultural income is zero), whilst a zero value for DII would indicate only agricultural income.

A diversification index that would take into account the *activity-driven* diversification is proposed as follows:

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[2] Capital accumulation is *the consequence* of income diversification, not the aim of income diversification. Again, I see it like this: there are two stages (not necessarily a sequential, but cyclical process: first, the income-dominant phase is more linked to the aim of covering the basic needs. This phase will be dominant as long as basic needs are the main priority. When a certain amount of capital (and apart from financial capital, it can be education, information, land. etc) accumulates (as consequence of income-diversification stage), the activity diversification stage weights more against income-diversification. It is described as a sequential process but it should be thought as a dynamic (or, better, cyclic) one, with the dominance of one or another type varying from one stage to another (as a new income brigs up new needs). We maintain that income-driven diversification puts a stress in obtaining the income to cover the basic needs while activity-driven diversification makes use of surplus resources once the main income source(s) is (are) assured (and encourages a more active entrepreneurial behaviour).

$$DIA = \frac{\sum AP_{nf}}{\sum AP} \cdot 100 \qquad [2]$$

where DIA = Diversification Index (Activity-driven)

AP_{nf} = active population involved in non-farming activities

AP = active population

A value of 100 would indicate diversification fully outside of agriculture, whilst a value of zero would indicate an exclusively agrarian community.

The weakness of the above ratios is that they do not consider 'agriculture' itself as a possible second activity for diversification. Therefore, a more detailed approach to diversification patterns would consider pure Non-Farming Rural Diversification (DI) and Hybrid Non-Farm Rural Diversification (DIH). The former considers only those individuals having a secondary non-farming activity while the latter accounts both farming and non-farming activities people choose to diversify their activities (possible also their income). These two indices are defined below as follows:

$$DI = \frac{\sum AP_{snf}}{\sum AP} \cdot 100 \qquad [3]$$

where

DI = Pure Diversification Index (DI)

AP_{snf} = Total active persons having a Secondary activity in Non-Farming

AP = Total active population

The Hybrid Diversification Index (HDI) is defined as

$$HDI = \frac{\sum AP_{(sf+snf)}}{\sum AP} \cdot 100 \qquad [4]$$

where

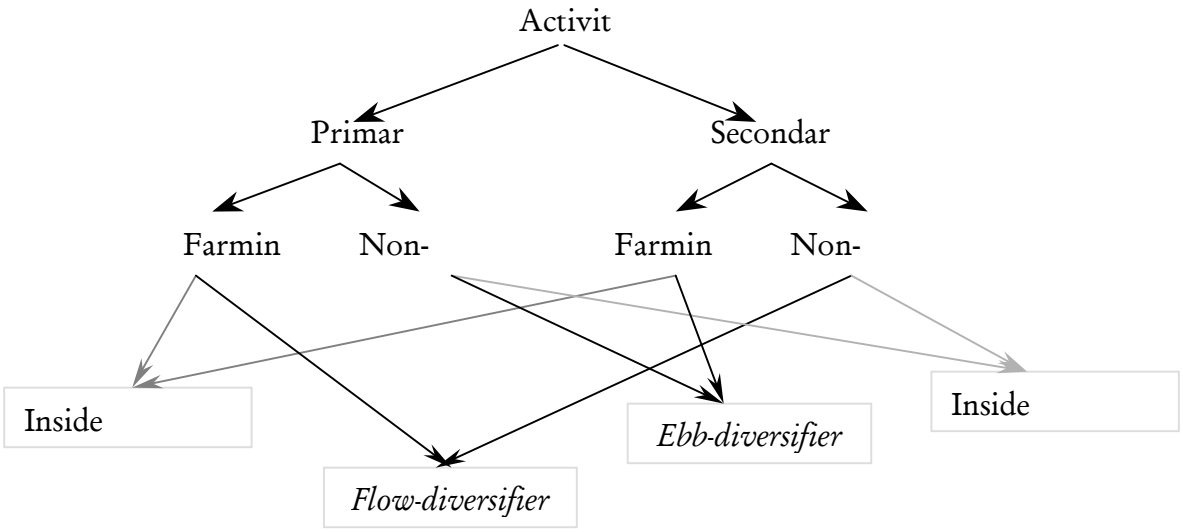
$AP_{(psf+snf)}$ = Active Population having secondary occupation in farming or non-farming

AP = Total active population

A value of 100 would indicate diversification (including agriculture among possible options in the case of HDI) or not (in the case of DI) whereas a zero value would denote a non-diversified situation (either solely in agriculture or in non-agricultural sectors).

Furthermore, considering the *type of activities* in which the active population are involved, three different diversification patterns may occur: (i) *inside*-; (ii) *ebb*- (or distress-push) and (iii) *flow* - (or demand-pull)[20] diversifiers. *Inside-diversifiers* are those choosing a second job in the same domain (either agricultural or non-agricultural sector) as their first activity (job). This would be most common in the case of low capital endowment (financial or human), or among those rural inhabitants who are not prepared to assume the risks of entering into a different activity domain. *Ebb-diversifiers* are those whose primary activity (job) is in the non-farm domain and choose a second activity (job) in the agricultural sector. A predominance of *ebb-diversifiers* would indicate a situation where either non-farm income does not cover subsistence needs, forcing people back into agriculture, or where there are distorted agricultural prices (either high due to low levels of agricultural productivity and efficiency, or low due to state policies aimed to protect low income consumers in urban areas but with a concomitant de-capitalising impact in farming communities). Finally, *flow-diversifiers* are those with a primary activity (job) in agriculture and a second activity in the non-farm economy. These are the demand-driven, risk-taking diversifiers, usually having a better financial and/or human capital endowment, hence better equipped to take advantage of market opportunities, and thus able to shift out of agriculture. It may also be the case that these flow-diversifiers cannot find opportunities for diversification within agriculture and therefore try to re-orient their activities (and/or sources of income) to non-agricultural activities. Figure 1 summarises the possible diversification patterns presented above.

Figure 1. Diversification patterns



Source: Own Survey, 2000

Table 2 summarises the distribution of the Diversification Index (DI) at the level of the sampled Romanian *communes*. Clearly, the majority of the population is clustered in the low diversification region, which suggests the dominance of a unique, farm-based pattern of activities.

Table 2. Types of non-farm diversifiers according to the distribution of the Diversification Indices (sampled communes)

DI Pure NF diversification				**DIH** Hybrid diversification (into both F and NF)			
		N (number of active persons)	%			N (number of active persons)	%
Non-diversifiers *(P in F only)*	DI = 0	18249	46.8	Non-diversifiers *(P in F only)*	DIH = 0	18249	46.8
Non-diversifiers *(P in NF only)*		9819	37.1	Non-diversifiers *(P in NF)*		9819	37.1
F Diversifiers *(S in F)*		6093	15.4				
Pure NF Diversifiers *(S in NF)*		331	0.8	Hybrid diversifiers *(S into both F and NF)*		6424	16.1
of which:	*0<DI<20*	331	0.8	*of which:*	*0<DIH<20*	2434	6.2
	21<DI<40	0			*21<DIH<40*	3990	9.9
	41<DI<60	0			*41<DIH< 60*	0	0
	61<DI<80	0			*61<DIH<80*	0	0
	81 DI < 99	0			*81<DIH< 99*	0	0
Fully non-farming diversifiers *(P and S in NF)*	*DI = 100*	0		Fully non-farming diversifiers *(P and S in NF)*	*DIH = 100*	0	0
Total sample		**34492**	**100**	**Total sample**		**34492**	**100**

Legend: P is *primary activity*; S, *secondary activity*; F is *farming activity*, NF is *non-farming activity*.
Source: Authors Estimates, Survey 2000

The low level of non-farm diversification in the sampled communes is presented in Figure 2 where the left-skewed distribution of active people involved in non-farming activities is obvious. This provides additional evidence regarding the nearly exclusive farming characteristic of rural communities. Considering the regional differences this may be a reasonable representation of the general situation in rural Romania. The strikingly low level of non-farming diversification also supports the hypothesis of under-utilised local resources and points towards the wide range of needs existent at villages' level, most of which could be covered through the development of non-farming activities.

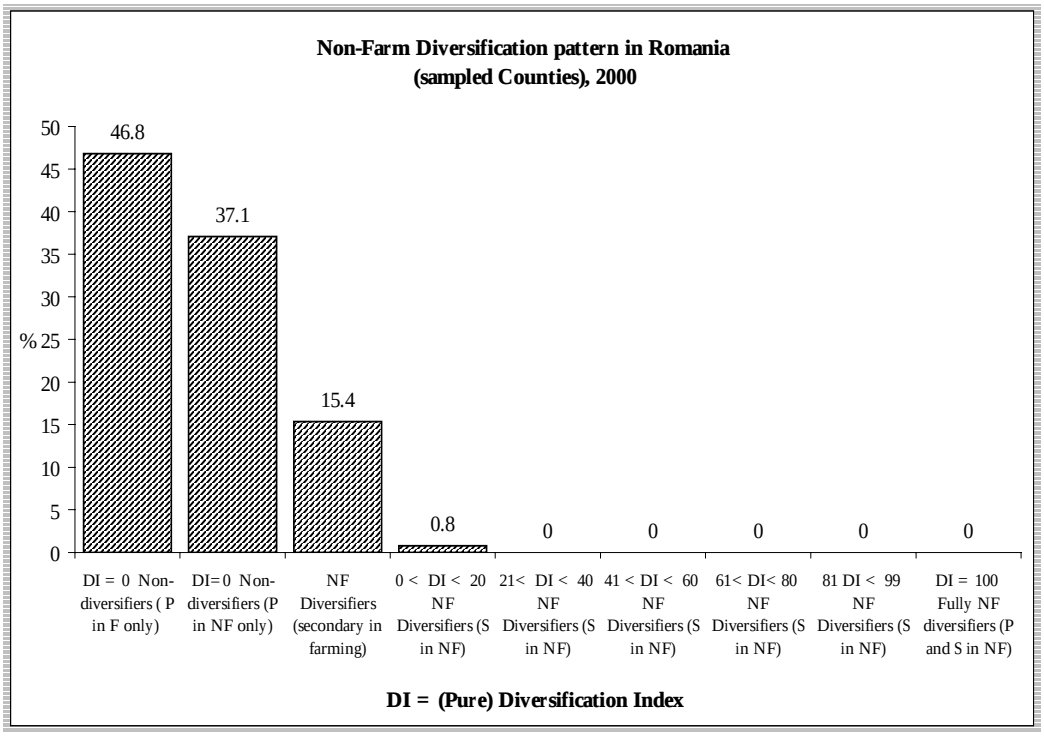


Figure 2. Non-Rural Farm Diversification Pattern in Romania, 2000 *(sampled counties)*

Table 3 includes the structure of diversifiers at the level of the surveyed communes. Interestingly, in only two of the sampled communes, is the active population involved (as a secondary occupation) in non-farming activities. Our analysis of the data indicates that in these two communes, Motatei and Segarcea (Dolj County), the non-farm rural diversifiers are women and (in the total sample) there are no men having a secondary non-farming activity. Women tend to find secondary non-farm activities as seasonal unqualified labourers (125 persons in Motatei and 80 persons in Segarcea), and various professions (teaching, law, or medical care) (respectively 25 women in Motatei and 65 women in Segarcea); finally, in Segarcea, 36 of the women are involved in other secondary activities (not specified). The policy implications of these findings will be discussed later.

Table 3. Diversification pattern at the level of sampled communes

County	Commune	Non - Diversifiers				Diversifiers			
		Primary in F		Primary in NF		Secondary activity in F and NF		Secondary activity in NF	
		N (Number of persons)	%	N (Number of persons)	%	N (number of persons)	%	N (number of persons)	%
Dolj	Dabuleni	6957	*68.2*	1853	*18.2*	1385	*13.6*	0	*0.0*
	Isalnita	1266	*32.9*	1290	*33.5*	1290	*33.5*	0	*0.0*
	Motatei	3940	*52.3*	900	*11.9*	2700	*35.8*	150	*2.0*
	Segarcea	3439	*65.3*	1061	*20.1*	766	*14.5*	181	*3.4*
Brasov	Voila	1076	*58.8*	470	*25.7*	283	*15.5*	0	*0.0*
	Feldioara	1426	*44.5*	1782	*55.5*	0	*0.0*	0	*0.0*
	Moieciu	145	*5.6*	2463	*94.4*	0	*0.0*	0	*0.0*
Total		**18249**	***46.8***	**9819**	***37.1***	**6424**	***16.1***	**331**	***0.8***

F = Farming; NF = Non - Farming

Table 4 includes the diversification patterns observed at the level of the sampled Romanian *communa*. In Dolj, the share of those leaving the county and diversifying outside of agriculture is higher than that of those who return and get involved in farming. This may to some extent be explained by the limited opportunities to diversify available to the Dolj population.[3] The only *communa* where there is an opposite trend, i.e. a higher share of people having a secondary occupation in agriculture, is Motatei.

In Brasov County, on average, the population tends to have agriculture as a secondary occupation. The only commune in Brasov County where the share of flow-diversifiers is higher than that of ebb-diversifiers is Voila. We have identified three main reasons for this pattern of diversification in Brasov County. First, the County has a high degree of industrialisation and due to relatively high levels of unemployment in urban areas, some of the unemployed industrial labour force entered farming (at least temporarily) as a business or survival strategy; hence the predominance of subsistence farming in Romania. Secondly, the low-income and/or unemployed groups of the urban population sought to cover their food requirements, probably by cultivating some of the land restituted based on 1991 and 2000 Land Laws. This drift back to agriculture may also be indicative of an attempt to take advantage of emerging opportunities resulting from increased demand for agricultural tourism services; a traditional though still under-developed sector of the County economy.

[3] This is a possible case of almost generalised distress-push non-farm diversification. If data on the level of income were available, probably it would have indicated the insufficient (low) level of agricultural income (possibly also profit) pushing labour outside agriculture or preventing it to return to farming.

Table 4. Patterns of diversification at communa level

Communa	Inside1	flow	inside2	ebb	flow-ebb
	%	%	%	%	
Dabuleni	40.9	34.1	9.1	15.9	**18**
Motatei	33.2	16.5	16.8	33.5	**-17**
Segarcea	43.0	27.1	7.0	22.9	**4**
Isalnita	37.2	29.4	12.8	20.6	**9**
Dolj (average)					***4***
Voila	38.2	34.4	11.8	15.6	**19**
Feldioara	22.2	22.2	27.8	27.8	**-6**
Moieciu	2.8	2.8	47.2	47.2	**-44**
Brasov (average)					***-10***

Inside1 = active population having a primary activity in farming and a second activity in farming.

Inside2 = active population having a primary activity in non-farming sector and a second activity in the non-farm economy.

Flow = active population having a primary activity in farming and a secondary activity in the non-farm economy

Ebb = active population having a primary activity in the non-farm economy and a secondary activity in farming.

Ebb- and flow diversifiers are those seeking diversification opportunities outside their primary area of expertise. Inside diversifiers are those looking for diversification opportunities inside their main area of expertise (skill set or knowledge).

3. Main findings

Apart from the low productivity soils (mainly acid, podsol, and clay types), Brasov County is characterised by a relatively wide range of natural resources such as forestry, mineral resources, well developed infrastructure, and good agro-tourism potential, all of which creates a good basis for non-farm diversification activities. On the other hand, Dolj County is predominantly an agricultural county, with mainly good productivity type of soils, but with serious infrastructure problems (including limited access to sanitation, potable water supply, roads and railways). The following analysis is based on data from seven communes, four in Dolj (namely Dabuleni, Motatei, Segarcea and Isalnita) and three from Brasov (Voila, Feldioara and Moieciu). Table 5 summarises their characteristics in terms of population and natural conditions. Dabuleni is the largest communa in the sample with more than 15,000 inhabitants and has the highest average household size, whilst Isalnita is the smallest with only 4,355 inhabitants. The soil quality and type and annual rainfall level influence the level of agricultural production. Soil quality is better in communes within Dolj (except sandy soil in Dabuleni) but the average annual rainfall is low, while in Brasov, all the communes have low quality soils while the average annual

rainfall level is high. The geographical position of these two counties also determines the structure of agricultural production and the potential range of rural non-farm activities.

Table 5. Description of sampled communes

	Population (persons)	*Number of households*	*Household size (average)*	*Altitude (m)*	*Average annual rainfall (pp)*	*Annual medium temperature (°C)*	*Prevalent soil types*	*Geographic type*
Dabuleni	15,896	3,898	4.08	10	200	11.7	sandy	Plain
Motatei	9,218	3,022	3.05	80	555	11.4	levigated chernozem	Plain
Segarcea	8,763	2,968	2.95	130	528.1	10.9	degraded chernozem, forest redish-brown	Plain
Isalnita	4,355	1,405	3.1	100	528	10.9	forest brown	hill; plain
Dolj (average)	*38232*	*11293*	*3.39*		*452.7*	*11.2*		
Voila	4,798	2,016	2.38	900	600	9	podsol	Hill; mountain
Feldioara	7,300	1,850	3.95	80	665.5	7.8	clay, alluvionary	hill; plateau
Moieciu	5,503	1,485	3.71	1000	680	6	acid, brown	Mountain
Brasov (average)	*17601*	*5351*	*3.29*		*648.5*	*7.6*		

The average population density in the sampled communes is approximately 70 persons/km^2, the highest population density being in Isalnita (136 persons/km^2) (Dolj County) and the lowest density (30.85 persons/km^2) in Voila (Brasov County) (Table 6). This different population density is explained by the different geographical structure of the counties, mountainous villages tending to be more dispersed than those from plain regions are. Only Isalnita and Feldioara are above the average population density for Romania (i.e. 94.6 persons/km^2).

Table 6. Population density

Commune	*Population - total*	*Geographical area (km^2)*	*Density (persons/km^2)*
Dabuleni	15,896	182.86	86.93
Isalnita	4,355	32.01	136
Motatei	9,218	129.09	71.41
Segarcea	8,763	120.08	72.98
Voila	4,798	155.53	30.85

Feldioara	7,300	75.97	96.09
Moieciu	5,503	103.43	53.21
Total sample	*55,833*	*798.97*	*69.88*

3.1. Land

With two exceptions (Moieciu and Isalnita) where land is totally private, the share of the private land area at commune level varies between 13.1% (Feldioara) and 69.8% (Voila). Moreover, with the exception of Voila and Moieciu, where the share of arable area is 41.6% and 9.9% respectively, in all the other communes the share of arable land in total agricultural area is over 50% and most of it is under private property.

Table 7. Land structure (*communa level*)

Communa	Total area			Total agricultural area				Total arable area			
	Ha	*of which :* Total private area		Ha	*% of total area*	Total private agricultural area		Ha	*% of total agricultural area*	*of which:* Total private arable area	
		Ha	*%*			Ha	*% of total agricultural area*			Ha	*% of total agricultural area*
Dabuleni	17480	8000	*45.8*	15680	*89.7*	7400	*47.2*	13290	*84.8*	6800	*91.9*
Motatei	12150	7650	*63*	11250	*92.6*	7650	*68*	10350	*92*	6750	*88.2*
Segarcea	11827	5770	*48.8*	11152	*94.3*	5437	*48.8*	9996	*89.6*	4962	*91.3*
Isalnita	1993	1993	*100*	1923	*96.5*	1923	*100*	1697	*88.2*	1697	*88.2*
Voila	14706	10270	*69.8*	11561	*78.6*	9458	*81.8*	4812	*41.6*	4430	*46.8*
Feldioara	7597	994	*13.1*	4921	*64.8*	0	*0*	2832	*57.5*	0	*0*
Moieciu	9421	9421	*100*	2364	*25.1*	2364	*100*	235	*9.9*	235	*9.9*

3.2. Land ownership

With a share above 80% of the total population, Romanians dominate the ethnic structure of all communes (see Gaburici, 2001). There are no Hungarians or Germans in communes within Dolj and it is only in Dabuleni and Segarcea that Gypsies reside, 1.9% and 17.4% respectively of the total population. In Dabuleni and Motatei, there are also other ethnic groups, but they represent less than 3% of the total population. So far as the communes in Brasov are concerned, the ethnic structure is more mixed particularly in Voila and Feldioara, while Moieciu is mainly mono-ethnic. Hungarians represent 10.7% of the total population in Feldioara and 0.5% in Voila while Germans represent 2.5% of the total population in Feldioara and 0.7% in Voila. This ethnic structure is not surprising, with Hungarians and Germans being traditionally more numerous in Transylvanian counties. Table 8 shows the ethnic structure of land endowment. In only one communa, Voila, the share of total land per ethnic German is higher than for Romanians. In all other *communes* Romanians have the highest total, agricultural or arable land per person, while Gypsies, with only 0.01 ha/ person in Segarcea, have practically no land. However, it should be noted that the reduced total area per person varies between 0.46 ha in Isalnita (Dolj) and 1.71 ha/ person in Moieciu. However, without land consolidation, the reduced land endowment per person acts as a distress-push factor, forcing people out of farming.

Cultivation of high value crops (e.g. flowers, some varieties of vegetables) which would induce a more profitable use of these small plots requires investment, working capital and knowledge (for production and marketing) which often are not available. The existence and further development of producers marketing co-operatives may be useful and some forms of legislation are already available to encourage this process. However, the idea of co-operation was greatly compromised both under communism and during the early years of transition, and induced a degree of mistrust or reluctance in engaging in any form of farm association that could not be reasonably controlled.

Table 8. Ethnic Structure of Land Endowment *(communa level)*

a. Ethnic Structure of Land Endowment

Commune	Total land/Romanian (ha/person)	Total land per Hungarian (ha/person)	Total Land/German (ha/person)	Total land/Gypsies (ha/person)
Dabuleni	1.04	0	0	0
Motatei	1.32	0	0	0
Segarcea	0.80	0	0	0.01
Isalnita	0.46	0	0	0
Voila	1.47	0.48	3.43	0
Feldioara	0.51	0.01	0.35	0
Moieciu	1.71	0	0	0

b. Ethnic Structure of Agricultural Land Endowment

Commune	Total agricultural land per Romanian (ha)	Total agricultural area/Hungarian (ha)	Total agricultural area/German (ha)	Total agricultural area/Gypsy (ha)
Dabuleni	1.01	0	0	0
Motatei	1.22	0	0	0
Segarcea	0.75	0	0	0.01
Isalnita	0.44	0	0	0
Voila	1.47	0.48	3.26	0
Feldioara	0.51	0.01	0.35	0
Moieciu	0.43	0	0	0

c. Ethnic Structure of Arable Land Endowment

Commune	Total arable area/Romanian (ha)	Total arable area/Hungarian (ha)	Total arable area/German (ha)	Total arable area/Gypsy (ha)
Dabuleni	0.85	0	0	0
Motatei	1.12	0	0	0
Segarcea	0.68	0	0	0.01
Isalnita	0.39	0	0	0
Voila	0.85	0.28	1.46	0
Feldioara	0.49	0.01	0.32	0.04
Moieciu	0.04	0	0	0

3.3. Agricultural mechanisation

Table 8 includes the workload per tractor and combine harvester at commune level in the two surveyed counties. As a general observation, the general mechanical endowment is low. The 'best' situation is in Voila, where there are 10 hectares per tractor and 'the worst' in Isalnita, with 67.9 hectares of arable land per tractor. A worse situation may be

observed where the workload per combine, ranges from no combines in Moieciu to about 170 hectares of arable land per combine in Motatei. The sample average is 35.3 hectares of arable land per tractor and 416.7 hectares per combine. Compared to the national average of 57 hectares arable land per tractor (or about 90 ha of agricultural land per tractor) and 196.5 hectares arable land per combine, the tractor workload per tractor is lower, respectively higher for combines in sampled communes.(It should be noted that in 1993, the workload was 13.5 hectares / tractor in the UK, 13.4 in Poland, 12.9 in France and 8.9 in Italy while the workload per combine harvester was 90 hectares per combine in Poland, 79.4 in Italy, 71.4 in UK and 47.4 in France (Beeney, 1993; MAF, 2000). To some extent it is difficult to generalise on the basis of a small sample; however, it should be noted that households with 2.2 ha average land size and a staple cropping pattern cannot acquire any machinery using exclusively agricultural income. Moreover, at this farm size, owning a tractor would be inefficiently used, unless mechanical services were also provided[21].

Table 9. Mechanical Asset Endowment

	Workload per tractor and combine		Farm size
	Arable land		(ha arable land/household) ha
	Ha / tractor	Ha / combine harvester	
Dabuleni	44.3	1329	3.4
Isalnita	67.9	169.7	1.2
Motatei	37.6	159.2	3.4
Segarcea	16.7	249.9	3.4
Voila	10.0	300.8	2.4
Feldioara	31.5	708	1.5
Moieciu	39.2	0	0.2
Sample average	*35.3*	*416.7*	*2.2*

3.4. Agricultural output

As expected, household self-consumption is prevalent for all major crops and in all communes (Table 10). Maize, plums, peaches, grapes for consumption and wine are entirely or nearly 100% used at home in almost all communes. Also, more than 70% of wheat (except in Motatei), potatoes and apples are used to cover home consumption. A recent Romanian study has found similar self-consumption values at the household level: 80.2% of vegetables, 69.2% of fruits, 71.1% of cereals produced at household level are used to cover self-consumption needs (Florian, 2000). Segarcea seems to be the commune with the highest level of home consumption of agricultural output while the least diversified agricultural output is found in Moieciu. On the other hand, crops for processing such as oilseeds (oleaginous plants) and sugar beet, together with vegetables (tomatoes, cucumbers, peppers and melons) are traded to a greater extent. Regarding the processing of crops, this is possibly due to the prevalence of informal arrangements and that many of these crops are

much less useful to retain for home consumption than to sell to local processing industries, while vegetables are a fast source of income and mainly occupies household labour, especially that of the children and elderly members of the household. It should be noted that the cultivated areas with processing crops in the private agricultural sector declined in recent years, due to both their higher degree of mechanisation requirements and the collapse/restructuring of the processing industry. We found that the barter economy is surprisingly, less common than anticipated. It was only evident in two of the seven sampled communes, namely in Segarcea (5% of wheat was bartered in 2000) and in Feldioara (2% of barley was bartered in 2000) and possibly indicates a stringent need of sampled households for cash to cover their expenditures.

Table 10. Agricultural output used at home

Commun a	Barley	Wheat	Maize	Potatoes	Oleaginous	Sugar beet	Apples	Grapes	Plums
	%	%	%	%	%	%	%	%	%
Dabuleni		80	100	65		10			
Motatei	40	55	100					40	
Segarcea	95	75	100	100				100	100
Isalnita	100	80	70	100				20	
Voila		80	100	30					
Feldioara	89	85	80	100	45		100	100	100
Moieciu							50		

Commun a	Melons	Peaches	Tomatoes	Cucumbers	Peppers	Cabbage	Onions	Grapes for wine	Wine
	%	%	%	%	%	%	%	%	%
Motatei	20	100	20	25	32	30	80	90	100
Isalnita	100	100	15	15	15	25	40	100	100
Segarcea			80	70	70	80	80	40	80
Dabuleni	10		40						80

Table 11. Traded Agricultural Output (2000)
– Crop and vegetable production -

Communa	Barley	Wheat	Maize	Potatoes	Oleaginous plants	Sugar beet	Apples	Grapes
	%	%	%	%	%	%	%	%
Dabuleni		20		35		90		
Motatei	60	45						60
Segarcea	5	20			100			
Isalnita		20	30					80
Voila		20		50				
Feldioara	9	15	20		55			
Moieciu							50	

Communa	Melons	Tomatoes	Cucumbers	Peppers	Cabbage	Onions	Grapes for wine	Wine
	%	%	%	%	%	%	%	%
Dabuleni	90	60						20
Motatei	80	80	75	68	70	20	10	
Segarcea		20	30	30	20	20	60	20
Isalnita		85	85	85	75	60		

There is some variation in the livestock endowment at household level in the surveyed communes (Table 12). With a maximum of 3 pigs and 38 chickens per household, Dabuleni is the communa with the highest livestock endowment in our survey. The presence of these two species in all communes surveyed is a normal finding for predominantly self-consumption oriented rural communities. In Romania pork is widely consumed. Free-range (household breeding) poultry does not place onerous requirements in terms of shelter, time or feeding compared to other livestock. On the other hand, dairy cows and horses are the least numerous in the sample. One of the main reasons for this is the low land endowment per household (thus direct competition between cereals and forage production for limited amounts of land). There is also a lack (or too expensive) forage, and diminished communal grazing areas. The low number of horses reminds of the agricultural mechanisation policy of the late 50s and 60s that eliminated or at best, ignored, this species, despite its long breeding tradition at households' level. Finally, Romanians traditionally breed sheep mainly in a household system, (in the former APC and/or IAS these were the annexes to the main farm activities).

Table 12. Livestock endowment *(household level)*

	cattle	dairy cows	sheep	goats	pigs	horses	chicken
	Heads / household						
Dabuleni	0	0	5	0.1	3	0.3	38
Motatei	0	0	0	0.0	1	0.0	6
Segarcea	2	1	3	0.4	1	0.2	22
Isalnita	0	0	1	0.1	1	0.0	11
Voila	2	1	2	0.0	2	0.2	9
Feldioara	1	0	2	0.1	1	0.1	5
Moieciu	1	1	8	0.0	1	0.2	4
Average sample	*0.9*	*0.5*	*3.1*	*0.1*	*1.2*	*0.1*	*13.5*

3.5. Labour force

Table 13 summarises the characteristics of the inflow and outflow of the labour force at commune level. Men compose the main outflow of the labour force, and their share is over 60% in nearly all communes while the percentage of women temporarily migrating in search of seasonal labour is far less, the highest percentage being in Motatei (38.7%). Gypsies are the ethnic group with the highest mobility in terms of the outflow of labour, followed by Hungarians andRomanians In contrast, with the gender structure of the outflow of labour, women are clearly dominating the inflow of labour mainly seeking seasonal employment in the surveyed communes (with the exception of Isalnita). It cannot be concluded from the available data if in relative terms the ethnic structure of inflow labour force is the same as for the outflow; in absolute terms Romanians dominate the inflow of labour (which was expected, as they are the dominants ethnic group).

Table 13. Characteristics of seasonal labour force

a. Outflow Labour Force

Communa	People finding seasonal work outside the community (%)		Ethnic groups finding seasonal work outside the community (%)*		
	Men	Women	*Romanian*	*Hungarian*	*Gypsies*
Dabuleni	83.3	16.7	*0.8*	0	*0*
Motatei	61.3	38.7	*0.0*	0	*0*
Segarcea	83.0	17.0	*4.3*	0	*0*
Isalnita	*na*	*na*	*2.3*	0	*0*
Voila	74.0	26.0	*3.1*	0	*28.9*
Feldioara	71.0	29.0	*1.4*	2.6	*61.4*
Moieciu	*na*	*na*	*0.0*	0	*0*

** Relative value (as % of ethnics that seasonally migrate for work from the total number of ethnics)*

b. Inflow Seasonal Labour Force

Communa	People finding seasonal work inside the community (%)		Ethnic groups coming into the community as seasonal workers (%)**	
	Men	Women	*Romanian*	*Gypsies*
Dabuleni	33.3	66.7	*66.7*	*33.3*
Motatei	42.4	57.6	*100*	*0*
Segarcea	28.6	71.4	*100*	*0*
Isalnita	62.5	37.5	*30.3*	*69.7*
Voila	53.0	47.0	*100*	*0*
Feldioara	*na*	*na*	*0*	*0*
Moieciu	*na*	*na*	*0*	*0*

*** Absolute value (% of ethnic in total inflow population).*

The results in Table 13 also show that Gypsies are the most mobile ethnic group in the search of a job outside their localities, and Hungarians being the least disposed to leave in search of a job (only 20% of the sampled commune). The age structure of those leaving for work from the five communes analysed indicates them as being relatively young people, predominantly male, with an average age ranging from 22 years old (Voila) to 45 years old in Feldioara (Table 14).

Table 14. Age and gender of people leaving community for work

Commune	Dabuleni	Motatei	Segarcea	Voila	Feldioara

Average Age			***32***	***30***	***30***	***22***	***45***
Gender	Men	No.	100	190	170	180	125
		%	*83.3*	*61.3*	*83*	*74*	*71*
	Women	No.	20	120	35	64	50
		%	*16.6*	*38.7*	*17*	*26*	*29*

When looking at the preferred destination for finding work, Turkey and Germany (both in terms of villages and towns) rank first, followed by Hungary and Italy. The preference ratio villages – towns is very narrow so from the available data it cannot be determined whether these temporary-migrant labourers find jobs more easily in towns or villages. The types of work they have access to most frequently is as unqualified or mechanics. Nearly 35% of these people are away from home for about one year before returning home.

Table 15. Migratory destinations and types of employment taken up by people who temporarily leave the community

Commune from which they leave			Dabuleni	Motatei	Segarcea	Voila	Feldioara
Where do they go abroad	Italy	Village	•				
		Town				•	
	Spain	Village	•				
		Town					
	Turkey	Village	•				•
		Town	•	•			•
	Germany	Village					•
		Town	•				•
	Yugoslavia	Village					
		Town		•			
	Greece	Village					
		Town		•			
	Hungary	Village					•
		Town					•
Where do they go in Romania	Village				•		
	Town			•	•		
Type of work	Unqualified		•		•	•	•
	Mechanics				•	•	
	Viticulture					•	
	Agriculture					•	
	Industry					•	
	Construction						•
	Trade						•
How long do they work away before returning	Nos of days per annum		360	75	150	320	60

3.6. Employment

The male: female employment ratio of the sample is nearly 1:1, with a slightly higher number of women. This ratio changes when considering the gender ratio by economically active population; in this case the higher percentage of active men (59%) (self-employment plus paid employment and active job seekers) compared to that of active women (46.8%) indicates a lower rate of employment for young women. Among the explanations for this situation may be lower access to, or availability of jobs for women. The highest rate of active male employment is found in Dabuleni (76.9%) and the lowest in Voila (44.1%) while the highest rate of active female employment is in Isalnita (64.9%) and the lowest in Feldioara (35.4%). Interestingly, the economically active male - female ratio is different between the two counties (Table 16). In Dolj, there are more men economically active than women while the reverse situation occurs in Brasov, and this can be due to the different agricultural structure and cropping pattern in the two counties.

Table 16. Economically Active Male / Female ratio *(communa level)*

	male / female ratio
Dabuleni	1.7
Isalnita	0.8
Motatei	0.9
Segarcea	0.8
Dolj County	**1.41**
Feldioara	1.4
Moieciu	2.2
Voila	1.0
Brasov County	**1.5**

Table 17. Ethnic structure of active population by type of employment (%)

Communa	**Romanian (% of ethnics Romanians)**					**Hungarian (% of active ethnics Hungarians):**				
	SEA	**EA**	**SENA**	**ENA**	**EPS**	**SEA**	**EA**	**SENA**	**ENA**	**EPS**
Dabuleni	91	3	3	2	0	-	-	-	-	-
Isalnita	51	3	11	32	3	-	-	-	-	-
Motatei	93	1	1	4	1	-	-	-	-	-
Segarcea	74	6	10	8	1	-	-	-	-	-
Feldioara	50	4	3	32	11	5.0	5.9	9.9	79.2	6.9
Moieciu	14	1	3	76	6	-	-	-	-	-
Voila	69	7	4	8	11	87.5	0	0	12.5	0

	Germans (% of active Ethnics Germans):					Gypsies (as % of active Ethnics Gypsies):				
	SEA	EA	SENA	ENA	EPS	SEA	EA	SENA	ENA	EPS
Dabuleni	-	-	-	-	-	-	-	-	-	-
Isalnita	-	-	-	-	-	-	-	-	-	-
Motatei	-	-	-	-	-	-	-	-	-	-
Segarcea	-	-	-	-	-	97.0	0	3.0	0	0
Feldioara	45.5	6.1	12.1	30.3	6.1	37.7	5.7	0	56.6	0
Moieciu	-	-	-	-	-	-	-	-	-	-
Voila	81.8	0	0	18.2	0	-	-	-	-	-

SEA = Self-Employed in Agriculture; EA = Employed in Agriculture; ENA = Employed in Non-Agriculture; SENA = Self-Employed in non-Agriculture; EPS = Employed in Public Sector.

Most of the active male population is self-employed in agriculture (61.2% of total sample), followed by the non - agricultural economy (16.9%), job-seekers (11.1%), those employed in agriculture (4.2%), self-employed in non-agriculture (4%) and public sector (2.4%). The same three most numerous areas for seeking employment also apply to active women. Employment in agriculture ranks last in frequency for women (Table 18).

Table 18. Employment of economically active population

Employment of active male population

Commune	*Active male population total*	*Self-employed in agriculture*		*Employed in agriculture*		*Self-employed in non-agr.*		*Employed in non-agr. area*		*Employed in public sector*		*Job seeker*	
	No.	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Dabuleni	6,232	4,986	80.0	250	4.0	150	2.4	150	2.4	10	0.2	686	11.0
Isalnita	1,200	200	16.7	50	4.2	110	9.2	585	48.8	55	4.6	200	16.7
Motatei	2,300	2,032	88.4	16	0.7	45	2.0	85	3.7	32	1.4	90	3.9
Segarcea	2,150	1,230	57.2	235	10.9	235	10.9	141	6.6	35	1.6	274	12.7
Voila	1,035	687	66.4	70	6.8	16	1.5	52	5.0	80	7.8	130	12.5
Feldioara	1,894	729	38.0	62	3.0	65	3.0	630	33.0	140	7.0	265	13.0
Moieciu	1,612	194	12.0	13	0.8	33	2.0	1,140	70.0	48	2.9	184	11.4
Total Sample	*16,423*	*10,058*	*61.2*	*696*	*4.2*	*654*	*4.0*	*2,783*	*16.9*	*400*	*2.4*	*1,829*	*11.1*

b. Employment of active female population

Commune	*Active female population total*	*Self-employed in agriculture*		*Employed in agriculture*		*Self-employed in non-agr.*		*Employed in non-agr. area*		*Employed in public sector*		*Job seeker*	
	No.	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*
Dabuleni	3,356	2,969	88.5	10	0.3	150	4.5	50	1.5	10	0.3	167	5.0
Isalnita	1,356	991	73.1	25	1.8	140	10.3	150	11.1	25	1.8	25	1.8
Motatei	2,540	2,283	89.9	9	0.4	15	0.6	105	4.1	18	0.7	110	4.3
Segarcea	2,350	1,967	83.7	7	0.3	138	5.9	162	6.9	20	0.9	56	2.4
Voila	1,106	576	52.0	62	5.6	64	5.8	98	8.9	124	11.2	182	16.5
Feldioara	1,334	580	43.0	52	3.0	30	2.0	310	23.0	142	10.0	220	16.0
Moieciu	996	101	10.0	5	0.5	28	2.8	485	48.6	87	8.7	290	29.1
Total Sample	*13,038*	*9,467*	*72.6*	*170*	*1.3*	*565*	*4.3*	*1,360*	*10.4*	*426*	*3.3*	*1,050*	*8.1*

With the exception of Isalnita, more than 60% of the active male population has farming as a primary occupation (Table 19). Fewer men have farming as a second occupation (i.e. 39.1% in Motatei, and around 20% in Dabuleni and Voila). Isalnita is the only communa where farming is mainly a secondary occupation (79.2%). This particular situation may be explained by Isalnita's higher degree of industrialisation. There are three communes, namely Segarcea, Feldioara and Moieciu where agriculture is the primary occupation for all economically active men. This also applies to the female populations of Feldioara and Moieciu. In the other five communes, the highest percentage of women involved in farming as a secondary occupation is in Motatei (39.5%) and the lowest is in Voila. On average, the percentage of active males having farming as primary occupation is slightly lower (73.1%) than that of females (76.9%). This would indicate a higher opportunity cost of male labour outside of farming and probably a better offer of work, or higher returns to labour for men than women.

Table 19. Gender Structure of the Active Population Involved in Farming

Communa	***Total Active Males in Farming***					***Total Active Females in Farming***				
	N	*of which:* Primary Occupation		*of which:* Secondary Occupation		N	*of which:* Primary Occupation		*of which:* Secondary Occupation	
		N	**%**	**N**	**%**		**N**	**%**	**N**	**%**
Dabuleni	***4986***	3988	*80*	998	*20*	***3356***	2969	*88.5*	387	*11.5*
Motatei	***3069***	1869	*60.9*	1200	*39.1*	***3421***	2071	*60.5*	1350	*39.5*
Segarcea	***1465***	1465	*100*	0	*0*	***2559***	1974	*77.1*	585	*22.9*
Isalnita	***1200***	250	*20.8*	950	*79.2*	***1356***	1016	*74.9*	340	*25.1*
Feldioara	***794***	794	*100*	0	*0*	***632***	632	*100*	0	*0*
Moieciu	***100***	100	*100*	0	*0*	***45***	45	*100*	0	*0*
Voila	***739***	560	*75.8*	179	*24.2*	***620***	516	*83.2*	104	*16.8*
Total sample	***12353***	**9026**	***73.1***	**3327**	***26.9***	***11989***	**9223**	***76.9***	**2766**	***23.1***

With the exception of Moieciu and *Feldioara* (in Brasov County) where the total active population involved in non-farm activities is higher than that in farming, in all the other communes, at least two-thirds of the active population is involved in farming (as a primary or secondary occupation) (Table 20). The proportion of the population having a primary occupation in the non-farm economy is lowest in Motatei (11.9%).

Table 20. Structure of active population involved in farming and non-farming activities (by primary or secondary occupation)

Communa	Total Active Population	Total Active Population in Farming				Total Active Population in Non-Farming			
		Primary Occupation		Secondary Occupation		Primary Occupation		Secondary Occupation	
	N (number)	N (number)	%	N (number)	%	N (number)	%	N (number)	%
Dabuleni	10195	6957	*68.2*	1385	*13.6*	1853	*18.2*	0	*0*
Motatei	7540	3940	*52.3*	2550	*33.8*	900	*11.9*	150	*2*
Segarcea	5266	3439	*65.3*	585	*11.1*	1061	*20.1*	181	*3.4*
Isalnita	3846	1266	*32.9*	1290	*33.5*	1290	*33.5*	0	*0*
Voila	1829	1076	*58.8*	283	*15.5*	470	*25.7*	0	*0*
Feldioara	3208	1426	*44.5*	0	*0*	1782	*55.5*	0	*0*
Moieciu	2608	145	*5.6*	0	*0*	2463	*94.4*	0	*0*

3.7. Activities by Ethnic Group

The ethnic structure of the population involved in farming shows that Romanians comprise the majority (with 100% in Dabuleni, Motatei, Isalnita and Moieciu), followed by Gypsies (14.5% in Voila), while Hungarians have the lowest percentage (only 1.3%, in Voila) (Table 21).

Table 21. Ethnic Involvement in Farming Activities (Active Population)

Communa	Total Ethnic pop. in Farming		Total Romanians in Farming		Total Hungarians in Farming	Total Germans in Farming	Total Gypsies in Farming	
	(P.O.)[a]	(S. O.) [b]	(P.O.)[a]	(S. O.) [b]	(P.O.)[a]	(P.O.)[a]	(P.O.)[a]	(S. O.) [b]
	N (no.)	**N** (no.)	**%**	**%**	**%**	**%**	**%**	**%**
Dabuleni	6957	1385	*100*	*100*	*0*	*0*	*0*	*0*
Motatei	3940	2550	*100*	*100*	*0*	*0*	*0*	*0*
Segarcea	3439	585	*87.9*	*100*	*0*	*0.0*	*12.1*	*0*
Isalnita	1266	0	*100*	*0*	*0*	*0*	*0*	*0*
Voila	1076	331	*97*	*85.5*	*1.3*	*1.7*	*0*	*14.5*
Feldioara	1426	0	*96.4*	*0*	*0.8*	*1.2*	*1.6*	*0*
Moieciu	145	0	*100*	*0*	*0*	*0*	*0*	*0*

[a]P.O. = Primary Occupation; [b]S.O. = Secondary Occupation

When considering the main areas of employment of the surveyed communities *farming* activities rank highest with 50.1% of the sample and most of the Gypsy population fall into this category, followed by Germans. We found that Hungarians are most frequently employed either as '*seasonal unqualified labour*' or in the '*service sector*' categories. This is

further illustrated in Table 22 which shows ethnic group employment or income generating activity specialisation.

Table 22. Ethnic group activity specialisation (sampled communes)

Main activities (sampled communes)	Score	Romanians	Hungarians	Germans	Gypsies	Others
		communes of total sample				
Agriculture	4/7	3/7	1/7		1/7	1/7
Handicrafts	1/7	1/7				1/7
Trade	4/7		2/7	2/7	1/7	
Services	2/7		1/7	2/7	1/7	
Other					1/7	

"Other" includes irrigation, forestry exploitation, industry, professions, and manufacturing.
Source: Survey 2000

Table 22 shows that in 3 out of 7 communes, Romanians are involved in agriculture, while Hungarians, Germans, Gypsies and the others are reported being occupied (specialised) in agriculture in only one commune of the 7 surveyed. The non-answer rate may be explained either by the unavailability of data "per ethnic group", or the relatively high mobility of the population, and the unsettling impact of short-term casual jobs. In many transition economies, particularly in Romania where the economic situation is still unsettled population 'flows' between a variety of income generating activities in search of employment opportunities is quite common.

3.8. Public institutions

Table 23 summarises the assessment of the local structure in terms of access to land and housing, communication and general services. Most respondents maintain that it is relatively easy to buy, lease or rent land, except in Dabuleni where access to land is considered "poor/ bad". Most respondents considered the quality and supply of housing poor in the surveyed communes. However, most of the surveyed communes have a good connection to the railway network, telecommunications and consider the cost to access telephone services as "average/ medium" (it would have been interesting to see the percentage of families with access to telephone services but these data were not available). Notably, sanitation is cited as having a "poor/ bad" level in all communes (only in Feldioara its was quality considered "average/ medium"), followed by access to gas supply while the charges for communal services were also considered high.

Table 23. Assessment of the local infrastructure

Land and housing

Communa	Land to buy/purchase	Land to lease/rent	Supply of housing	Housing /rent in the village
Dabuleni	3	3	3	
Motatei	1		3	1
Segarcea	2		2	2
Isalnita	1		1	
Voila	2		2	2
Feldioara	1		1	2
Moieciu	2		3	1

Communication

Communa	Road network in area	Connection to railway	Access to telecomm.	Cost of telephone (installation & running	Quality / access to public transport
Dabuleni	2	3	1	1	2
Motatei	1	1	1	1	1
Segarcea	1	1	1	1	1
Isalnita	1	1	1	2	1
Voila	2	1	2	1	3
Feldioara	1	1	1	2	1
Moieciu		3	2	1	2

c. Services

Communa	Access to power supply	Access to gas supply	Sanitation	Costs/charges for community. services	Municipal taxes
Dabuleni	1	3	3	1	
Motatei	1		3	1	1
Segarcea	1	3	3	2	
Isalnita	1	1	3		
Voila	1	3	3	3	
Feldioara	1	1	2	3	1
Moieciu	2	3	3	2	

Key: 1 = good (high); 2 = medium; 3 = bad (low)

3.9. Infrastructure

There is an obvious underdevelopment of the infrastructure in all the communes analysed here. Our analyses of the infrastructure shows that some of the general services (such as post offices, pharmacies) exist. However services related to health, technical services or information needs are not covered. A more developed agricultural output-processing sector would be beneficial by providing employment (thus potentially reducing work-seeking migration) and reduce the processing costs of agricultural products There are only two offices in *Feldioara* and one in Segarcea offering technical / extension services (Table 24). There are only two labour exchange shops (in Motatei and Segarcea) and two offices offering agricultural information (in Dabuleni and Segarcea). Local authorities are well represented in nearly every communa while the number of agricultural associations varies between three in Motatei and Voila to five in Dabuleni. The access to health services is notably very low. In Voila there are two community health workers and this is the only case, as there is none in the other communes. The education network also suffers. There is a primary school and at least one secondary school in each commune; it is only in Dabuleni and Segarcea that there are also vocational and high schools. The level of commune industrialisation is low, as there is only one functioning textile factory in Dabuleni and a uranium-processing factory in Feldioara.

Table 24. Infrastructure development at communa level

Information network

Communa	Local authorities/ council	Agricultural chamber	Agricultural association	Technical services for agriculture / extension service	Agricultural information system office	Labour exchange / Job Shop
	N (no.)	**N** (no.)	**N** (no.)	**N** (no.)	**N** (no.)	**N** (no.)
Dabuleni	1	1	5		1	
Motatei	1		3			1
Segarcea	1	1	4	1	1	1
Isalnita			.			
Voila	1	1	3		1	
Feldioara	1	1	4	2		
Moieciu			.			

b. Public facilities

Communa	Post office	Hospital	Periodical medical service / community health worker	Pharmacy	Veterinary
	N (no.)	**N** (no.)	**N** (no.)	**N** (no.)	**N** (no.)
Dabuleni	1	1		3	2
Motatei	1	1		2	
Segarcea	1	1		1	1
Isalnita	1				
Voila	7		2	1	1
Feldioara	1			1	2
Moieciu					

c. Education access

Communa	Primary school	Secondary school	Vocational school	High school	Higher / university / polytechnic
	N (no.)	N (no.)	N (no.)	N (no.)	N (no.)
Dabuleni	1	3	1	2	1
Motatei	1	1			
Segarcea	1	1	1	1	
Isalnita	1				
Voila	1	7			
Feldioara	1	3		1	1
Moieciu	1				

d. Industry and Trade

Communa	Factories			Shops			Agricultural product merchant
	Bakery; mill	Textiles	Uranium processing	Bakery	Butcher	Grocer	
Dabuleni	N (no.)	N (no.)	N (no.)	N (no.)	N (no.)	N (no.)	N (no.)
Motatei		1		1		5	
Segarcea	2			1	1	3	3
Voila				2		2	
Feldioara			1	2			

The main findings of the above survey results and analysis may be summarised as follows:

There is a clear difference in the counties' endowment of natural, human and capital factors. Dolj is a mainly agricultural County, with a dominant arable sector in the local economy, and with low level of infrastructure development. Brasov is a mountainous County, ethnically more heterogeneous, highly industrialised, with important forestry reserves and a traditional tourist area.

The natural agricultural potential is different among the two counties. In Dolj highly productive types of soil predominate but the high variations in annual weather conditions induce high instability of agricultural production, hence household income. In Brasov, the soil quality is poor, still the County is among the main producers of potatoes and sugar beet in the country.[4] Forestry accounts for an important share of the County's natural resource endowment but the ongoing process of land restitution constrains the development of private initiative in this sector.

[4] These are traditional crops in the county; also the leading National Research Institute for potatoes is located in Brasov.

Most of the land in the surveyed communes is under private property, almost all being arable land. The share of land per person is low, the highest being found 1.71 ha/person which can be viewed as a push-out of farming factor of younger population. The level of machinery endowment is generally low. This has a negative impact on the agricultural technologies utilised, inducing delays in the seeding and / or harvesting times, excessive use of manual labour (hence low labour productivity), all of which contributes to the production losses and low agricultural output registered by the surveyed households (see Davis and Gaburici, 2001).

We found that self-consumption is prevalent for all major crops; however, more commercial crops (such as oilseeds, sugar beet and certain vegetables) are traded to a greater extent. The low level of self-consumption found in the sampled communes may be justified by the households' need for cash.

The ethnic structure of the land ownership indicates Romanians having the highest share as compared to the other ethnic groups while Gypsies own practically no land and have the highest mobility. Hungarians seems the less disposed to migrate outside communes for seasonal work. A pattern of occupational preference has been identified, indicating that Romanians are more likely to be found involved in agriculture (probably due to their higher land endowment), while Hungarians and Germans would be more predisposed towards trade and services.

The level of development of non-farming rural activities in surveyed communes is low, the majority of population being involved in agriculture. The non-farming job offer is limited, most of the women having a secondary activity either as unqualified agricultural labour force or into professions. Men have been found not having a secondary activity at all, they having a primary activity in farming (predominantly) or non-farming. Younger male are more predisposed to migrate outside rural communities for work, as their comparative advantage may be higher outside farming as compared to female'. The male involved in farming seems to be the elderly and / or retired ones.

Among the causes determining the flow of younger population from rural areas and outside migration for work can be the low access to land and housing, communications and services. Basic needs as access to water, health and sanitation, education and information are especially stringent problems to be dealt with in rural areas. The development of local collecting, distribution and processing networks are potential job – creating activities, reducing the rate of rural unemployment and labour force outflow migration.

Based on the above findings, some conclusions and policy implications may be offered.

4. Conclusions

The following conclusions and recommendations are based on the analysis of a sample of villages from two Romanian counties,. One county, Dolj, is predominantly agricultural and with a low degree of industrialisation while the other, Brasov, has a higher degree of industrialisation and a lower share of agriculture in the total county's economy. The main findings of the analysis have been placed in the wider country context, while acknowledging for the regional diversity and local specificity in rural Romania.

More than 45% of Romania's population lives in the rural environment, in localities known as "communes". A commune is made up of several small villages, but there are also communes that consist of a single larger village. The rural area in Romania is considered to be *the administrative territory of the 2,685 communes in the country*. Sadly, the past communist regime left an unfortunate inheritance in the rural area: vast mono-agricultural areas with poor infrastructure and with many villages deprived of elementary conditions for a decent living (piped and potable water, electricity, gas etc).

In Romania, annual rainfalls vary considerably, and vast agricultural areas located in the south and south-eastern regions are frequently afflicted by drought. The absence (or non-functional) irrigation systems exacerbates the dependence of agricultural yields on weather variations, induces an extremely large annual variation of average yields/ha, and the fall of the income of small private farms (particularly in the drought years) below the limit of subsistence. It is clear that the expansion of non-agricultural activities (which are influenced to a far lesser extent by natural factors) can reduce livelihood vulnerability. The natural resource base has significantly influenced the study population's occupational structure. For example, in the communes Voila and Moieciu (Brasov county) with large forest areas, traditional lumber processing, furniture production and logging activities predominate. In the villages from Dolj-county where farming is the primary occupation, most non-farm activities are linked to agricultural product processing and other services for agriculture. Most ethnic minorities (Hungarians, Germans and Gypsies) are employed in the agricultural sector and in other seasonal (unskilled) labour activities (10% of the surveyed community population).

Our analysis of non-farm diversification in Romania suggests that given the present level of human and financial capital at the individual and household level, promoting un-targeted rural development programs to encourage non- farm livelihood diversification may have limited impact. Our findings suggest that it would be better to target such programs or assistance which optimise the use of local natural resource endowments. Moreover, providing programmes that are gender sensitive might be more successful in both making a better use of locally available human resources and possibly prevent the migration of more skilled labour from rural areas.

Most people in our survey have had more than one job and this supports our hypothesis that presently the income-diversification predominates against activity diversification. With more than half of the population living in poverty, it can be understood why the priority

of rural inhabitants is to cover their basic rather than trying to get involved into activity diversification. Secondary employment is probably under reported in official Government statistics. Appropriate policies and programmes are required to be put in place by considering both local endowment and human capital characteristics (in terms of gender, education, age, etc).

Most migrants from our surveyed communities are male (approx. 70%) and go to rural areas in Greece, Italy and Spain for farm work. Those who migrate to urban centres go to Germany, Yugoslavia (construction jobs) and Italy. Other survey village migrants go to Turkey and Hungary for both urban and rural jobs in construction, services, cross-border trading activities and farm work. Most migrants spend around a year abroad. Therefore remittances are a very important source of non-farm income for rural households. Migration within Romania *from* the surveyed villages is mainly to urban centres for largely unskilled jobs. Migration *to* the surveyed villages is mainly from within the more mountainous and depressed regions of Romania (particularly migration to Brasov). 55% of these internal immigrants are women who stay for around 100 days per annum and provide unskilled (cleaning, etc.) and seasonal agricultural labour.
Provision of short training courses, perhaps with an on-job training is among the most urgently required services and might enhance the development of small enterprises at village level that would attract and stabilise this migrant labour force, and induce a positive impact on the development of local economy.

In addition, there are two basic community level problems identified throughout this study: (i) Disorientation, lack of information and lack of demonstration effects for successful/ sustainable community action for improvement of infrastructure, communal facilities and rural services; and (ii) Isolation and despondency, particularly among the young and pensioner populations. One measure which might be undertaken in order to address the first problem is to identify successful communities and to promote a successful project or model of rural non-farm development, which the local community established (demonstration effects). The way in which this is implemented must take into account the culture and attitudes of local communities including the inclination towards an oral culture (Bleahu, 2001). Modern media and informal traditional networks should be employed at the same time to disseminate valuable experience about successful rural development activities. While the dissemination of agricultural information and demonstrations related to farming are provided to a certain extent through the national extension service, the same does not happen concerning rural non-farm diversification opportunities or possibilities. There is still a significant need to provide such services as would encourage and stimulate the development of local initiative.

The opening-up of isolated communities and the development of better connections with urban centres require the identification of immediate, low-cost means of overcoming the lack of infrastructure. This could include "the village van" - a car belonging to the village and used for all kinds of transportation outside the village: transport of children to school,

teachers and doctors from the town to the village, emergency calls etc. Scholarships for children to continue education outside the village, especially after 8th grade would also be useful in this regard. A commuting transport service, compensating for the absence or low values for money similar state provided service is already functional in the large cities and is run by private entrepreneurs.

A crucial source of non-farm diversification may be agri-tourism. To a certain extent there are some encouraging developments in this area (e.g. several rural tourism operators exists and function already). However, if a "rural tourism boom" is desired, then this is hampered by the inappropriate rural infrastructure (e.g. roads' quality and accessibility), together with the absence of several basic facilities as access to current running water and appropriate sanitation. Improvements in infrastructure remain an important factor for the future development of rural communities and the RNFE. Respondents also identified macroeconomic stability, investment, institutional change and a sound legal and regulatory environment as being important. Encouragement of local initiative and provision of attractive facility packages for rural entrepreneurs may have a positive impact on the development and improvement of rural infrastructure.

If we consider policies or programs that would make better use of local endowments: identifying local leaders would help in implementing such programmes; also considering the local context before designing a NFD project it is important to attract the appropriate human capital and possibly reduce the migration of skilled labour out of rural areas.

If we consider labour market policies and programs: such information as is usually available at the municipal city level; at best, a mobile service to villages can be though (proposed) but this would rise the question of financing such an information service. General information regarding labour market requirements and opportunities is also published in the local newspapers; the problem is to make these newspapers available at village level to a higher degree. The local cultural centres can play a central role in disseminating such information; they also can serve as a gathering and meeting point of different groups; farmers' clubs can be established, together with other association. Unfortunately, the role of village cultural clubs in rural communities is limited at the moment and face financial problems (as they are financed mainly from public budget). A favourable environment and legislation for private initiative would have a positive impact.

On banking: the propensity of Romanian banking to lend and private household to borrow has a reduced degree in rural areas. Promoting a more flexible system of borrowing by banks would be beneficial for rural development but agriculture is regarded by banks as a high risk sector, and especially when comes about small households desire to lend. On the other hand, small farms are either not able or willing to offer the collateral required to obtain the loans (usually house or other high value assets).

It is difficult to draw generalisations from such a small sample. What this paper brings is a contribution to the understanding of complexity and diversity of Romanian rural communities and the need for careful design and implementation of any non-farm rural development programmes if they are to be successful. We target our paper to both international development agencies/donors and policymakers and we hope to contribute to the improvement of policies designed for Romanian rural areas.

To summarise, the key factors at county level which will increase the attractiveness of rural areas for investment and assist the creation of rural non-farm employment opportunities, are:

1. Development of viable farming structures and consolidation of private farms through the development of a functional land market. Encouragement of the emergence of agricultural producer and/or marketing associations that would allow better access to local resources, agricultural inputs and services.

2. Encouragement and development of a flexible, customer-oriented marketing network, and of local industry and food processing that would allow both a better use of local resources and provision of employment for the local labour force (hence, a reduction of qualified labour migration to urban areas or abroad).

3. Development of local infrastructure through improvement of roads, sanitation, access to health, educational and informational services. Creation of a favourable environment for the emergence of rural organisations at county and communa level, which would facilitate a better flow of information and decentralised decision-making processes.

4. Provision of an appropriate framework so that a sound rural financial network may be developed. This would provide better access to financial capital for the rural population.

5. Improved sensitivity of rural development programmes to local ethnic, social and cultural structures.

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Endnotes

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[2] A *comună* is made up of several small villages, but there are also *communes* that consist of a single larger village. The text uses the most used names in the literature as *commune(s)* even the correct Romanian versions are *comună* (sg.), respectively, *comune* (pl.).

[3] The counties baseline survey is mainly based on secondary data collection and interview of 25 key stakeholders including: mayors, agricultural extension officers, traders, bank managers and NGOs.

[4] The major drop in production during 1992 was mainly caused by bad weather, but was reinforced by a fall in the area planted. Good weather conditions contributed to a recovery in crop production in 1995 and 1997. However, this performance has not been sustainable.

[5] Presently, in Brasov County there are two main cities, seven towns, 43 communes and 150 villages.

[6] IAS (Intreprindere Agricola de Stat) or Agricultural State Enterprise.

[7] APC (Agricultural Production Co-operative): created during the collectivization process in the 50's and 60's, were in theory the result of the member's free will to associate. In fact, farmers were forced to give their land, or faced threats of deportation and imprisonment. The land, livestock, stables, tools the owners would bring to the APC became the indivisible property of the association. Legally, they still owned the land, but were forbidden to withdraw and work it individually. Each member was still entitled to 1,500 m^2 to work in private on condition to provide a certain number of working-days for the co-operative. The members were paid in produce or/and money in proportion to the profit of the association or for the number of days they worked within the co-operative. The extent to which the co-operativisation was imposed varied in different regions: the mountain areas were much less affected than the plains. By 1989 there were 3,775 APCs, owning 58% of the arable land in Romania. (OECD, 2000).

[8] Activist brigades composed of people who were not from the village used intimidation to initiate collectivisation. The activist brigades formed committees to organise the redistribution of land and accelerated the beginning of social revolution in the countryside. Not only did they act as a kind of post-war "truth" committee, passing judgement on the wartime actions of neighbours, but also, based on Article 12 of the 1945 land reform, required preference to be given to those soldiers who had been mobilised and all those who had fought against Hitler's Germany. Arrests for non-compliance or resistance to change (typically 2 to 5-year sentences) were widespread [Cartwright, 2000]. People were imprisoned, relocated from their villages or sentenced at forced labour at economic sites.

[9] Sometimes everything was expropriated, including their livestock and crops and in many cases whole German families were moved into a single room or stable.

[10] Much of the land that was taken-up by the Romanian population and state had been abandoned during the war. Ethnic Germans were not the only group displaced during the war. In addition to the 200,000 Germans who moved to Germany between 1940 and 1943, 375,000 Romanian Jews were deported to the concentration camps or forced to flee and seek refuge abroad. Approximately 177,000 ethnic Hungarians and 61,000 ethnic Bulgarians were forcibly displaced from their homes. For some of these groups post-war conditions were such that they never returned to Romania. Although accurate figures have never been collected, estimates put the number of gypsies killed in the Holocaust in Romania at around 36,000 or 12% of the pre-war population (Cartwright, 2001).

[11] It is difficult to accurately define systemisation (sistematizare (Ro)). It is essentially a planning term, which encompasses the co-ordination of socio-economic life to establish an optimum combination of facilities, a rational use of natural resources and a standardisation of everything from allotments to town centres (Cartwright, 2001). Systematisation aimed to discourage rural to urban migration and to upgrade village settlements to the status of urban areas. The planners believed that if villages looked like towns and offered employment opportunities, younger and educated peasants would decide to stay or return after university. However, it was a policy undermined by the central planning system, and which favoured certain settlements, the most remote or dispersed settlements were designated as unsuitable for improvement. During the 1970s in its later stages the systemisation policy proposed the demolition of these 'non-viable' villages along with others that had initially been described as viable. In 1988 this policy was ratcheted up, and coercion began to be used to halve the number of existing villages in Romania.

[12] It should be noted that this fragmentation refers mainly to the land that previously belonged to APC; while the IAS' land remained largely unchanged. The 2000 Land Law refers mainly to IAS' land.

[13] CENTROCOOP - is a network of small enterprises, most of them in rural areas. They were designed to utilise the rural labour force (that was not employed in agriculture) in crafting or small-scale industrial manufacturing. It currently has around 3,000,000 members, 90% of whom live in rural areas.
[14] Presently, in Dolj County there are two main cities, three towns, 94 commune and 180 villages.
[15] These inter-villages and APC-IAS inter-land changes caused land disputes when the land reform was applied, often people have taken the dispute into long court trials, if not settling it through by mutual agreements. It also influenced the slow restitution of IAS land as it was claimed, among others, that the real landowners should be identified before taking any decisions.

[16] SMA - station for the mechanisation of agriculture, was a state-owned enterprise renting tractors and other machines to the APCs and IAPs.

[17] In Romania, until 1996 producers were required to contract their production to economic agents qualified by the state i.e. State "integrators". In 1995 about 40% for bread quality and seed wheat and 90% for seed maize of the total harvest, had to be contracted at controlled prices (proportion depended on the product grown). . Romcereal and Comcereal companies involved in milling and baking were the designated integrators for wheat. In addition to procurement activities these integrators also: collected demand information for farm inputs and passed this information on to supply firms; acted as credit intermediaries and distribution agents for farm inputs; imported grain, managed the State reserves, drying and storage facilities; redistributed cereals within the country and supplied grain to processors. As Romcereal was activating as a state monopoly, it was subsequently dismantled and reorganised.
[18] For an analysis of peasant economics see Ellis, 1993.

[19] It should be noted that it is possible to look at two different aspects of the same problem. The theoretical observations offered above have been framed in terms of groups of households. However, if we consider each individual, it is as likely that the first impulse for diversification is income (primary diversification) and then activity driven (secondary diversification). To a certain extent this could also be applied to a single household, assuming that all its members have the same goal and comparative advantage. Thus, at an individual household level diversification could be considered a sequential process. On the other hand, as we have argued above, different households are usually at different stages of development (or capital accumulation) so for some of them the income-driven stage will predominate while for others activity-driven diversification would be more important.

[20] *Ebb* and *flow* diversifier notions are more illustrative in the context of transition economies, emphasising the dynamic character of diversification in an unstable economic environment. This is to say that diversification does not have a permanent character.
[21] Therefore, for small households it may be vital to form a machinery pool, with their neighbours. This may also be the main explanation for the prevalence of informal agricultural associations in Romania.

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