



Rural Non-Farm Economy Project
Central Avenue, Chatham Maritime, Kent ME4 4TB, United Kingdom
Tel: +44 (0)1634 880088; Fax: +44 (0)1634 883706 Email: j.m.downard@greenwich.ac.uk
WWW: <http://www.nri.org/rnfe/index.html>

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Junior Davis and Douglas Pearce

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The Non-Agricultural Rural Sector in Central and Eastern Europe¹

*Junior Davis*²
Douglas Pearce

During the central planning era, rural development in Central and Eastern Europe (CEE) was frequently associated with agricultural development. Recently, opinion has begun to move away from this position. Attention is now focusing on the role of the non-farm sector in the context of rural development because of this sector's potential for absorbing excess labor from agriculture, alleviating problems caused by urban-rural migration, contributing to income growth, and promoting a more equitable distribution of income. At the beginning of the transformation process in transition countries, economic policies focused mainly on macroeconomic problems, and the increasing income disparity between rural and urban regions was ignored. We now know that the increasing inter-regional divergence in the transition economies is one of the major transformation problems. This is one of the reasons why the World Bank, OECD, and the EU have formulated special rural development strategies.

In most transition countries a sizeable part of the population still lives in rural areas. Overall, agriculture's share of employment in some transition economies has increased since 1989 due to the voluntary return of discharged urban workers of rural origin and the agricultural sector's role as an employment buffer. However, the agricultural sector is failing to provide a decent source of livelihood for its workforce. The rural labor force cannot be productively absorbed in the agricultural sector and poverty is growing. Recent studies on the rural situation in CEE (Pearce and Davis, 2000; Breitschopf and Schrieder, 1999; Heidhues et al., 1998) identified a number of factors shared by the CEECs that contribute to a sense of alienation among the rural population and to lack of rural entrepreneurship:

Rural areas suffer from unemployment (direct or hidden), low incomes, and lack of economic opportunity.

Levels of human capital, in terms of education and skills, are dramatically lower than in urban areas.

Health and other social services are not adequate.

Rural infrastructure, including roads, telecommunications, water, and waste management, is in need of upgrading.

Lack of access to suitable rural finance and credit facilities for small- to medium-sized enterprises (SMEs).

Inadequate support for business in the form of information and mutual organization.

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² The authors are from the Social and Economic Development Department of the Natural Resources Institute, University of Greenwich.

Characteristics of the non-farm rural economy

The non-farm rural economy (NFRE) is defined as being all those activities associated with wage work or self-employment in income generating activities that are not agricultural but located in rural areas (Lanjouw 1999). Non-farm activities may include manufacturing (i.e., agro-processing) and be accumulative (e.g., setting up a small business) or adaptive (switching from cash crop cultivation to commodity trading in response to drought, coping through non-agricultural wage labor or sale of household assets as an immediate response to a shock, or comprise a survival strategy as a response to a livelihood shock). NFRE is not homogenous. It is essentially heterogeneous, incorporating self-employment, micro and small/medium-sized enterprises (SMEs), traders, and migration. The NFRE sector incorporates jobs that require significant access to assets, whether education or credit, and self-employed activities, such as roadside hawking of commodities, which may have low entry barriers (or none at all) and low asset requirements.

The expansion of NFRE and diversification of income are desirable policy objectives because they give individuals and households more options to improve their livelihood security and their living standards. Economic theory suggests that risk-neutral farmers will divide their labor supply between on-farm and non-farm employment opportunities such that the expected marginal returns to all activities are equal. If farmers are risk averse, less time will be allocated to the more risky jobs when the expected returns are the same, or alternatively the farmer will accept lower wages in a less risky environment (pay a risk premium). Off-farm labor can be used by farmers to reduce the total variance of their income, i.e., the overall risk, or to increase the total returns to labor.

In poor rural areas some households will make a positive choice to take advantage of opportunities in the non-farm rural sector, taking into consideration the wage differential between the two sectors and the riskiness of each type of employment. Rising incomes and opportunities on-farm reduce the supply of labor off-farm. However, other households are pushed into the non-farm sector due to a lack of opportunities on-farm, for example, as a result of drought or smallness of land holdings. For policy makers it is important to understand why an individual is entering the non-farm rural market. One of the key areas of discussion in the literature is to understand if individuals respond to new opportunities in NFRE – *demand-pull*, or are driven to seek non-farm employment because there are no opportunities on-farm – *distress-push*. The key features of distress-push and demand-pull diversification are outlined in **Table 1**.

Table 1. The Push and Pull Factors of NFRE Diversification

<i>Push factors</i>	<i>Pull factors</i>
<ul style="list-style-type: none"> • Population growth • Inadequate access to fertile land • Low farm productivity • Low returns to farming • Lack of access to farm input markets • Decline of the natural resource base • Temporary events and shocks • Lack of access to rural financial markets 	<ul style="list-style-type: none"> • Higher return on labor in NFRE • Higher return on investment in NFRE • Lower risk of NFRE compared to on-farm activities • Generation of cash to meet household objectives • Economic opportunities, social advantages offered in urban centers and outside the region or country • Appeal of urban life to younger people

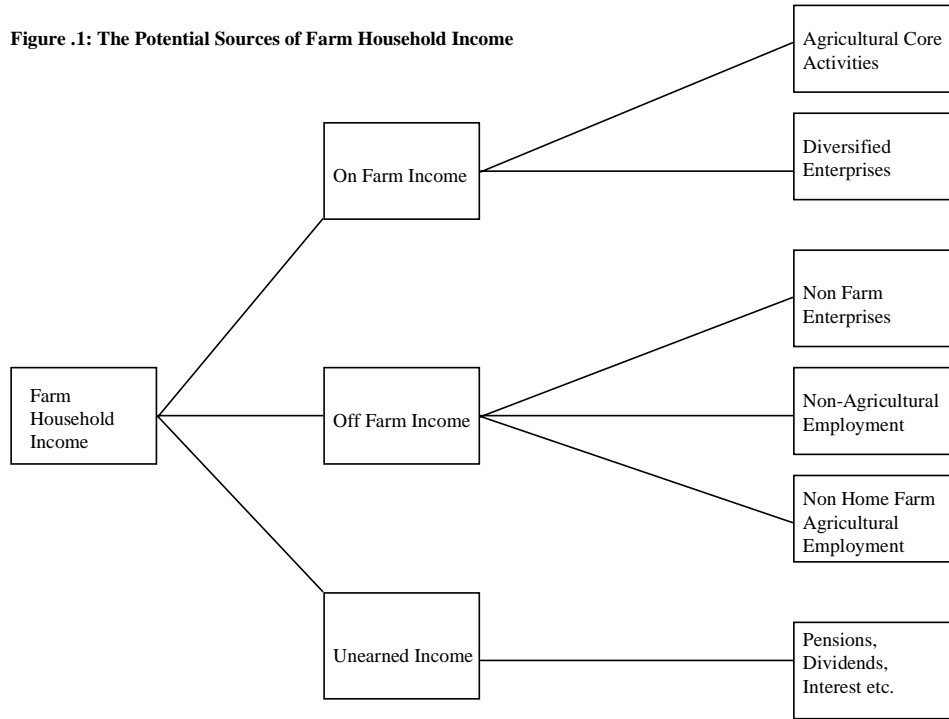
Pull factors are at work when returns to NFRE are higher than to farming, or when returns to farming are more risky (Reardon et al 1999). Conversely, push factors are at work when farm output is inadequate, opportunities for consumption smoothing (credit and crop insurance) are missing, or input markets are absent. Islam (1997) suggests that factors leading to demand-pull include increase in the income of lower- and middle-income households and increased demand from urban areas for rural products. Successive droughts that depress farm income and increase the need for alternative sources offering low-skill cheap income are identified as a distress-push factor. As evidence of distress-push, wages or incomes are likely to be lower in the non-farm rural economy. It is important that policy-makers make this distinction between distress-push and demand-pull because each may require different policy responses. The former may require policymakers to develop appropriate social safety net and interventionist policies to mitigate the short-run negative effects that sometimes accompany this type of diversification (e.g., over-rapid urbanization placing tremendous pressure on urban centers, negative environmental impacts etc.). Where demand-pull factors are driving the process of diversification, policy-makers might seek to provide a suitable “enabling environment” to support the development of NFRE and sustainable rural livelihoods.

NFRE Income

Livelihood diversification includes on- and off-farm activities that are undertaken to generate extra income via the formation of agricultural and non-agricultural products, the sale of wage labor, self-employment in small firms, and other strategies to spread risk, including radical migration strategies. A plethora of terms to capture the NFRE activities of farmers have emerged: diversification, multiple job holding, pluriactivity. This has led to a series of binary classifications: between full-time and part-time farmers, pluriactive and non-pluriactive farmers, diversified and non-diversified occupiers. However these simple dichotomies are unable to capture the absolute and relatively diverse nature of income sources. The traditional and main component of income in rural households has been income from agricultural core activities. These may be defined as enterprises taking place in predominantly agricultural units based on primary production of food or fiber. In addition, Islam (1997) identifies five distinct sources of non-farm income: (a) non-agricultural activities within the household; (b) activities in small rural towns; (c) work in large cities (involving commuting); (d) remittances from household members in cities; and (e) remittances from household members overseas.

Figure 1 is an attempt to systematize the diverse income sources of rural households. On-farm income can come from both agricultural core activities and diversified enterprises operating from the farm. Potential sources of off-farm income can be divided into three components: income from non-home farm enterprises, non-agricultural employment, and non-home farm agricultural employment. As such, one can distinguish between enterprise diversification and income diversification. Enterprise diversification activity embraces both on- and off-farm business creation outside of agricultural core activities. Income diversification embraces these two components plus any movement toward non-home farm employment (whether agricultural or not). Finally, a third source of revenue is unearned income (such as pensions, dividends, and interest). Although often ignored, this source can be very substantial in certain cases and

decisions made in this sphere may have an important bearing on such crucial choices as time of retirement and intensity of farming.



There is generally a positive correlation between higher income level of rural families, higher potential for diversification of income sources (NFRE), and higher productivity in agricultural activities. Recent NFRE research has also shown a positive correlation between higher diversification of non-farm activities and a number of qualitative factors, such as the level of education; quality and access to infrastructure; quality, objectives, and organization of services; opportunities created through local, regional, and national government policies; and access to credit and financial services.

Potential sources of income are likely to vary substantially in importance among farmers and exhibit wide variations in their attractiveness as sources of pecuniary gain. These variations between components of income have a major effect on the decision-making of farmers and there is a need to understand the importance of each rather than subsuming them all into binary classifications, such as the part-time/full-time dichotomy. The implications of not recognizing the diversity of potential sources of non-farm income by policy-makers could be quite serious. For example, it might lead to the development of inappropriate sectoral policies that support commercially viable farming activities at the expense of others, which although much less remunerative may be of vital importance to the livelihoods of more vulnerable groups in society.

NON-FARM RURAL ACTIVITY IN THE CEECS

In the CEECs a sizeable part of the population still lives in rural areas (**Table 2**). Although rural development policies and interventions have tended to focus on the agricultural sector, the rural population derives its income from multiple sources – even where the national economies are relatively undiversified. Income from non-farm activities is used to increase or smooth family income, reduce risk (through diversification), and improve future employment prospects (by acquiring skills or capital). In some cases, these livelihoods may exist in rural areas; in other cases, they may require daily travel to rural towns or even involve migration that generates remittances.

Table 2. Population in Rural Areas (% of total population)

Faster-track CEECs	1996	1997	Slower-track CEECs	1996	1997
Slovakia	40.8	40.3	Albania	62.4	62
Slovenia	48.4	48.2	Bulgaria	31.3	31
Czech Republic	NA	75.9	Croatia	43.8	43.4
			Romania	43.6	43.2

Source: OECD

Rural households in the CEECs commonly depend on non-farm sources for 30-50% of their income (Davis and Gaburici; Greif 1997). This is similar to the proportion found in southern Africa (on average 40% (Ellis) and in South Asia and Latin America, where rural households are around 60% dependent on non-farm income (Lanjouw; Reardon et al.). The share of the rural population involved in non-farm activities varies widely, ranging from around 7% in Poland to 65% in Slovenia. In most CEECs between 5-20% of family farms participate in non-farm activities (**Table 3**). The proportion of enterprises with supplementary activities is highest in regions with large-scale agriculture (15-20%). In countries with scattered rural structures (e.g., Bulgaria, Poland, Romania and FYR Macedonia), the demand for additional employment is high, but opportunities are less numerous. Creating more opportunities for non-farm work in the CEECs has become a formidable task for policymakers given the high levels of rural unemployment and depth of poverty compared to the EU (Milanovic). The rural non-farm sector has the potential to play an important role in poverty alleviation for the rural population in CEE.

Table 3. Participation in Non-Farm Activities: 1996-1997

Country	Rural population	Persons engaged in agric.	Number of farms	Subsistence farms	Performing additional and subsidiary activities			Rural unemployed
	'000	'000		%	farms	%	persons	%
Czech R.	3,610	760	26,900	NA	4,170	15	120,000	(5)
Slovakia	2,255	580	8,900	NA	1,800	(20)	115,000	15
Hungary	3,690	1,900	1,200,000	80	107,000	9	250,000	14
Slovenia	736	350	156,700	10	100,000	65	180,000	8
Poland	14,700	8,800	2,048,000	60	162,000	5-7	480,000	40
Romania	9,490	2,750	3,190,000	75-90	320,000	(10)	275,000	35

Note: Numbers in parentheses are estimates. In Hungary, about 1,100,000 “mini producers” normally produce for self-supply and farming is mainly a secondary activity. A similar situation is observed throughout most of CEECs but is not clearly registered. Source: Greif 1997.

During the central planning era, large-scale collective and state farms performed many other activities beyond basic agricultural production. Labor allocation to non-farm activities has decreased on large-scale farms with the spinning-off of these activities during the transition period. Yet part-time farming and non-agricultural activities appear to have grown in importance for small-scale individual farms. For example, in Albania, which is dominated by small-scale private agriculture, non-agricultural incomes are very important (they include mainly service activities and remittance payments to rural households from post-1991 emigrants working in Greece and Italy) (Pearce and Davis). Similarly, small farmers in Romania obtain non-farm income through non-farm wages and pensions (Davis and Gaburici). Farms with close links to urban and tourist markets earn incomes greater than the average.

Diverse income portfolios often include income from agriculture, migration, remittances, daily travel to nearby urban employment, local wage labor opportunities or self-employment in trade, agro-processing, tailoring, or services. **Table 4** indicates the importance of various NFRE activities for rural households in CEECs that form the main sources of additional income. Without this supplement of revenues a great part of the rural economy and society in the poorer CEECs could not survive. However reliable statistical information about income data are scarce due to insufficiencies of the national statistical systems and the prevalence of informal (hidden or illegal) activities as concomitant phenomena of transition.

Table 4. Main Sources of Non-Farm and Additional Incomes (percent of farms involved)

Country	Second jobs		Self employment		Sales receipts
	Commuting to non-farm jobs	Construction and ag services	Business	Rural tourism	Processing and direct sales
Czech Republic	-	26	21	(3)	-
Slovakia	-	(25)	(25)	(3)	-
Hungary	< 1	30	(50)	(2)	(2-10)
Slovenia		14		17	(50)
Poland	-	38	26	(3)	7
Romania	-	(20)	(10)	-	(2-5)
Latvia	-	(20)	(10)	-	(5)

Note: Figures in parentheses are rough estimates. Source: Greif (1997).

A wide variety of activities are undertaken from which the rural population derives income (bed and breakfast, hotels, industrial work, social work, crafts, direct marketing services etc.). However, due to lack of data it is difficult to measure the rate of growth of these activities in the rural context during transition. A large proportion of the non-farm activities in the CEECs are livelihood-oriented, and are neither a source of innovation nor a provider of significant economic returns as enterprises in their own right. The main uses of non-farm incomes in the CEECS according to their relative importance are as follows (Greif 1997):

- consumption and improvement of living standards;
- investment in non-farm business in rural areas;
- investment in up- and downstream activities;
- investment or expansion of farm business.

It is very difficult to assess the proportion of farms or rural dwellers that actually have the capacity or opportunity to earn non-farm incomes. Recent studies show that there remains a lack of non-farm employment opportunities in the rural economy and that governments need to

develop a coherent set of policies to promote local private activities downstream and upstream of agriculture, such as agro-processing, inputs, and mechanical services (Jehle; Davis and Gaburici; Breitschopf and Schrieder; Horská and Spešná). This requires an adequate macroeconomic environment and institutional support in terms of credit, training, advisory services, information technologies, and the simplification of administrative and bureaucratic procedures. Business creation and development depends on the availability of credit and human capital (e.g., educational levels). In the CEECs the main issue of education is to foster employment and business on a regional basis. In Romania, current World Bank and government initiatives (Chirca and Tesliuc) focus on developing a new program of rural comprehensive and vocational education that emphasizes agricultural education (farm management, production technology, food processing), craft education (craft techniques, management, information technology, consulting), and services (marketing, accounting and business management).

The key factor driving non-farm employment changes in the CEECs is the impact of the macroeconomic environment and structural reforms on labor adjustment in agriculture. These factors in turn depend upon how the reforms affect demand for labor in agriculture; how they affect the opportunity costs for farm labor, including the demand for labor outside agriculture and access to social benefits; and how difficult it is for farm labor to move to other sectors, either rural or urban (OECD).

NFRE Activities in the Czech Republic

The agricultural sector always contributed a relatively minor share of the Czech economy, and it has declined further since 1989 due to transformation processes (VUZE 1999). As shown in **Table 5**, the per capita GDP in rural areas is only 58% of that in urban areas and rural wages are much lower. The EU Special Accession Program for Agriculture and Rural Development (SAPARD) identifies 22 districts in the Czech Republic where farmers' incomes are below 80% of the national average. The share of the agricultural workforce in total employment in the Czech economy decreased from 9.8% in 1989 to 4.2% in 1998. The creation of new jobs is central to the Czech National Development Plan for 2000-2006 as rural unemployment is 12% higher than in urban areas, and employment growth is much slower. **Table 5** suggests that there is a need to develop rural areas by encouraging the development and creation of jobs, both in agriculture and in NFRE (SMEs, crafts and rural services, recreational activities, and tourism).

Table 6 shows the proportion of agricultural enterprises with non-farm rural activities in different regions as at September 1995. The table is based on agro-census data, where non-farm rural activities, called subsidiary gainful occupations, comprise services to agriculture (crop spraying, sheep shearing, etc.), meat, fruit, and vegetable processing, milling, baking, dairy services, soft drinks and wine production, construction, tourism, business development, and transport services. About 15% of enterprises occupied in agriculture as the main activity had subsidiary activities. Of these, agricultural companies and cooperatives represent the most numerous group (3,536 of 4,152 enterprises): around 59% of agricultural joint-stock companies and 58% of agricultural cooperatives carry out subsidiary activities (Greif 1997). The proportion of non-farm activities among individuals is considerably lower: around 10% of private farms.

However for the larger private farms with more than 100 ha of agricultural land this proportion rises to 24%. Non-farm activities include agricultural services (26% of large enterprises, 4% of small private farms), non-farm business (21% of large firms, 2% for small private farms), transport (20% and 1%, respectively), and construction (4% and 0.4%, respectively). A new law on agricultural cooperatives introduced in 1997 may contribute to an expansion in non-farm rural activities. The new law allows the choice of a broad range of entrepreneurial activities for cooperatives.

Table 5. Regional Differences in GDP, Average Wages, and Employment in the Czech Republic

Indicator	Czech Republic	Regions	
		Rural	Urban
Per capita GDP in 1996 (Euro):	3627	3219	4899
Relative to EU (%)	58.7	52.1	89.3
Relative to Czech Rep. (%)	100.0	88.8	152.2
Average wage in 1996 (Euro)	269	253	312
Relative to Czech Rep. (%)	100.0	94.2	123.2
Unemployment in Dec. 1998 (% of labor)	7.5	7.7	6.9
Relative to Czech Rrep. (%)	100.0	102.7	89.3
Difference in employment 1989-1996	-226,211	-300,705	+74,494
% of initial situation	-4.3	-6.7	9.8
Change in agricultural employment 1989-1996	-393,397	-373,349	-20,048
% of initial situation	-57.3	-56.5	-76.0

Source: VUZE 1999.

Table 6. Agricultural Enterprises with Subsidiary Gainful Occupations in the Czech Republic: 1995

Region	Number of enterprises	Percent of enterprises in the region
Central Bohemia	592	13.8
South Bohemia	466	12.8
West Bohemia	296	14.2
North Bohemia	273	12.8
East Bohemia	747	15.9
South Moravia	1,296	21.2
North Moravia	464	12.0
Prague	18	19.1
Czech Republic	4,152	15.4
Total agricultural enterprises	26,904	100.0

Source: VUZE 1995.

A survey of 255 rural SMEs conducted in 1997 found that the main reasons motivating the establishment of a firm included the desire for independence and the hope of improving the personal financial situation (Jehle). Some of the respondents were more market oriented and maintained that entry was based on a good idea or a good market opportunity (demand-pull diversification). The survey identified lack of money for further investment as a major constraint, especially among small firms complaining of poor access to credit. Former cooperatives, on the other hand, most often reported problems due to the distance from the markets. The firm's location relative to local and regional markets, the quality of public transportation, and the quality of education and housing were also found to be important factors for the establishment and development of SMEs.

Credit. Although financial services and stock exchange boards have developed quite quickly in Prague, they are virtually unavailable for SMEs in rural areas. The financial density of

banks in the Czech Republic is low and there is evidence of reluctance to lend to rural SMEs due to lack of information or experience in dealing with them. In Jehle's survey, 11% of respondents encountered significant financial problems (largely liquidity constraints), 25% felt that they could no longer survive due to financial problems, and only 10% of the sample maintained that they encountered no financial problems. The low level of access to credit is attributed by respondents to the feeling that interest rates are too high or to lack of sufficient collateral.

Much of the SME support is targeted through a direct approach, due to a preference for solving the individual business financial problems. The government has emphasized broad support for enterprise development, instead of focusing on economic development in territorial terms. The government has concentrated most of its NFR enterprise creation efforts on financial support, including grants, guarantees and subsidies. The support programs foster new investment projects in enterprises whose business plan fulfills certain profitability criteria. The programs are available nationally and target particular sectors or promote particular activities. To date, only two programs focus on problem regions. The REGION and ROZVOI programs became a core element of the government's efforts to combat unemployment through the creation of small business, but most respondents to Jehle's survey did not know of the existence of either of these institutions. There is also support for initiatives to establish local credit guarantees for venture capital programs in regions undergoing serious problems of unemployment and restructuring. The Czech Republic has taken important steps forward in establishing non-farm rural SME support programs and guidelines, but there remains some doubt as to whether the necessary "enabling environment" exists.

Rural infrastructure. Basic problems with infrastructure, scarce information, poor utility services, and low skill levels militate against the successful development of the NFRE sector in many parts of the Czech Republic. Rural areas have a marked disadvantage in terms of the level of rural infrastructure, with telecommunications and gas supply being the types of infrastructure in which rural areas are most notably deficient (

Table 7). Municipalities in the Czech Republic are well financed relative to the slow-track economies, having enjoyed access to long-term credit since 1993 (World Bank 1999). Yet Czech municipalities lack revenue autonomy, which hampers their plans to upgrade infrastructure and services. In addition, Czech statistics define as "rural" settlements with less than 2,000 people, thus excluding the relatively more prosperous rural towns. The combination of these factors may explain to some extent the rural-urban differences highlighted in

Table 7.

Transport accessibility is an important factor in the development of viable NFRE opportunities and labor mobility. The quality of the rural road network is difficult to assess, but most regions have requested road repair funds (VUZE 1999). Road repairs and upgrading have been neglected due to the high costs of these investments. Discussions with key stakeholders (ministries, researchers, rural dwellers, etc.) suggest that there is an urgent need to improve the neglected network of rural roads. Long-distance transport is to be addressed as part of the EU Instrument for Structural Policies for Pre-Accession (ISPA) program for the Czech Republic, and

the program recommends that the construction and repairs of rural roads (particularly those linking villages) be given national priority to meet rural needs.

Table 7. Infrastructure in Rural and Urban Areas of the Czech Republic: 1998

Indicator	Czech Republic	Regions	
		Rural	Urban
Number of municipalities	6244	5943	301
Percent of permanently used flats with:			
water supply	89%	98%	99.5%
sewerage	68%	63%	82%
gas	50%	43%	70%
telephone	30%	23%	50%
Percent of municipalities with			
water supply system	76%	75%	92%
sewerage system	26%	25%	38%
gas	31%	30%	63%

Source: VUZE 1999.

Telephone density in the rural areas is quite low, and the quality of service provision and technological infrastructure is in need of upgrading. An improved telecommunications infrastructure will be important for rural areas in developing NFRE opportunities, particularly for SME development. It is thus an important regional priority, although central government policies do not treat it as such.

Human capital. The level of education and access to it are also important considerations, as education appears to be correlated with entry to non-farm SME activity. The Czech education system does not really reflect the business needs of its rural firms and should encourage the dissemination of business (management and accounting) skills and also crafts. The government should place greater policy emphasis on raising the skill levels of its rural population.

The human capital dimension of rural employment also has a gender implication. Women have on average lower skills and fewer training opportunities than men (Jehle). Rural women earn lower agricultural wages than men: 7,173 CZK for women and 8,207 CZK for men in 1998 (Horská and Spešná). The unemployment rate for rural women is higher than for rural men (13.6% for rural women and 4.9% for rural men in 1999), and it is increasing much faster in recent years.

NFRE Activities in Romania³

Whilst overall employment levels in Romania fell by 25% between 1990-1995, the agricultural sector experienced growth in its labor force. In 1997 agricultural employment was 108.7% of the 1990 level, while industrial employment fell to 60.4% of the 1990 level (**Table 8**). Agricultural production during the same period increased to 105.6% of the 1990 level, less than the increase in agricultural labor force. Agricultural productivity in Romania is thus declining. In

³ This section is largely based on data collected during 1996-1998 in a survey of private farms and rural SMEs in the counties of Brasov, Dolj, and Timis. The survey was financed by PHARE-ACE as part of a study of rural financial market development in Romania and it is referred to as the Romania rural finance survey 1997/98.

1997 Romanian agriculture accounted for around 37% of the total labor force, while contributing only 18.8% to GDP (EBRD). Unemployment in Romania is increasing: the unemployment rose from 6.6% to 8.8% during the period 1996-1997. There has been a small net out-migration from rural to urban centers, but the current employment situation is forcing the agricultural sector to assume the role of a buffer, which leads to widespread and increasing underemployment and hidden unemployment in rural areas.

Table 8. Employment in Romania 1990-1997 (in thousands)

	1990	1997	Level of employment in 1997 compared to 1990 in %
Total employed	10,840.0	9,022.7	83.2
Agriculture	3,055.0	3,322.1	108.7
Industry	4,055.0	2,450.0	60.4

Source: Official statistics.

The rural population is not young: in two-thirds of the rural households the average age of the adults is over 50, and in one-third over 65. In 1996, the number of elderly people living in rural areas was 2.3 million, approximately 66% of the elderly in Romania. The worst affected villages are mostly located in mountainous regions but also in some plains, where the demographic balance has been altered due to out-migration.

Almost two-thirds of the rural population work in agriculture, and the remaining one-third have agriculture as their main occupation. Agriculture is thus the basis of the rural economy. Yet at least one adult per household has either a second job (in trade, transport, or crafts) or is not active (usually receiving pension benefits). There are few significant alternative sources of income, but nevertheless, according to a survey conducted in 1997/1998, NFRE activities involved 41% of the active population (**Table 9**).

Table 9. Employment Activities in Rural Romania: 1998 (counties of Brasov, Dolj, Timis)

Activity	Male	Female	Total	% of Active Population
Active population	9,304	9,601	18,905	100.0
Agriculture (farmers)	6,396	6,800	13,196	69.8
Trade (merchants)	233	245	478	2.5
Teachers	208	299	507	2.7
Engineers and technicians	220	121	341	1.8
Medical profession	32	30	62	0.3
Veterinarians	15	9	24	0.1
Sanitary personnel	53	105	158	0.8
Pharmacists	4	16	20	0.1
Public servants	210	172	382	2.0
Private employees	125	118	243	1.3
Crafts	542	180	722	3.8
Seasonal labor (unqualified)	845	545	1,390	7.4
Other employment activities	1,966	1,523	3,489	18.5
Non-farm rural employment	4,453	3,363	7,816	-
% of active population	48%	35%	41%	-

Source: Romania rural finance survey 1997/98.

The non-farm component of family income was also prominent in the 1997/1998 survey, because only half the household members reported full-time employment on the family farm and most of the others devoted the rest of their working time to off-farm occupations (Davis and Gaburici). On average, 35% of the respondents earned non-agricultural incomes, and 57% of respondents with non-farm income were wage earners. About 23% of the farms surveyed had at least one pensioner, 18% two, and 5% three. The value of pension income was around 10% of monthly off-farm earnings. **Table 10** ranks the primary and secondary sources of income according to their importance for total farm income. On-farm incomes are of prime importance to the financial viability of private farms, but off-farm wages (26.8%) and small businesses (primarily the sale or trading of farm services, usually locally, 13.2%) are also important primary sources of income. Off-farm income accounted for as much as 45% of total farm income in the survey. However, agriculture remains the single most important source of income and is also important as a secondary source of subsistence for those whose primary activities is non-farm (e.g., small business).

Table 10. Primary and Secondary Income Sources of Private Farms in Romania: 1997

	Primary income source		Secondary income source	
	Number of farms	%	Number of farms	%
Sale of vegetable products	68	30.9	76	34.5
Sale of animal products	56	25.5	61	27.7
Small business (trade, etc.)	29	13.2	34	15.5
Wages	59	26.8	22	10.0
Pensions	8	3.6	12	5.5
Others	--	--	2	0.9
Total	220	100.0	207	94.1

Source: Romania rural finance survey 1997/98.

Logistic regression analysis of the determinants of farmer access to rural finance show that the existence of off-farm sources of income (from a small business, or even wages and pensions) would increase the probability of obtaining credit by 2.7 times. Romanian banks appear to prefer lending to these farmers because they consider them to be less of a risk: they are not dependent on farming for the sole source of income. The development of rural industries and an adequate national rural development program will be essential to the financial viability of small private farming in Romania. Initiatives such as the Romanian-German project for the establishment of a farmers' producer association in Eastern Carpathians for the purchasing, sale, and use of farm inputs should be greatly encouraged. Perhaps the best-received aspect of the project has been a program for local women to encourage non-farm income generation. This has been promoted through the sale, design, and improved marketing of traditional wool products, dressmaking, and greenhouses for home food supply. Although the project is small, this type of activity has proved both financially successful and a useful tool for fighting rural poverty

Rural-urban migration has been highly selective, with the watershed traditionally being entry into secondary education. In a 1997/1998 survey of small and medium sized non-agricultural enterprises in Brasov and Dolj counties, the education and vocational training level of the entrepreneurs is clearly above the county average (**Table 11**). Compared to the national average, non-farm entrepreneurs more often have a high school degree or a university degree. Thus, the general and vocational education levels play an important role for the establishment, development, and promotion of non-farm SMEs in rural areas.

Table 11. Level of Education by County: 1997 (%)

	Elementary school	High school	Vocational	University
County averages				
Timis	40	32	10	17
Dolj	42	33	7	18
Brasov	35	25	7	33
Interviewed non-farm entrepreneurs				
Timis	22	37	22	20
Dolj	5	62	19	14
Brasov	7	61	7	25

Source: Official statistics and Romania rural finance survey 1997/98.

Table 12 lists the main non-farm rural activities in Brasov and Dolj counties as identified by respondents to the 1997/1998 SME survey. Trade and retail trade (stores, soft drinks, bakeries, confectioners, restaurants) comprise 63% of all non-farm SME activities. Most of these activities have low barriers to entry, and their gender dimension is often very important both for total household income and for intra-household labor allocation. As **Table 9** suggests, women play a significant role in the NFRE sector, and **Table 12** probably under-reports the number of female entrepreneurs involved in NFRE activities. Women are not always available to be interviewed despite being central to the SME operation, and for social reasons men are more likely to be the named manager of the enterprise.

Table 12. Non-Farm Rural Activities of SMEs in Brasov and Dolj Counties

Enterprise activities	Entrepreneurs		Number of entrepreneurs by gender	
	Number	%	Male	Female
Trade (including agro-tourism)	32	44	25	7
Agricultural services	3	4	3	-
Retail trade	14	19	13	1
Manufacturing	4	5	4	-
Non-agricultural services	8	11	7	1
Agri-processing	4	5	3	1
Industrial processing	5	7	4	1
Crafts	2	3	2	-
Others	1	1	1	-
Total	73	100	62	11

Source: Romania rural finance survey 1997/98.

Most firms in the survey (69%) employ fewer than five persons and many depend on family labor (**Table 13**). Firms in this group are generally involved in low labor productivity activities serving as a residual source of employment (trading and crafts). Rural SMEs contribute to rural employment because they are generally more labor intensive, facing lower labor costs and higher capital prices. These relative factor proportions correspond more closely to the true relative scarcities of inputs in rural areas, the development and startup of SMEs should be encouraged in rural areas (Lanjouw and Lanjouw).

The main reasons for starting a NFRE enterprise in our sample were the desire to utilize a potential opportunity to diversify with the aim of preserving the family's financial security and the identification of a favorable economic environment for a particular service or product Both

are demand-pull factors. Distress-push factors, such as lack of capital, family tradition, or unemployment, play a minor role in determining entry to NFRE activity.

Table 13. Firm Size by Number of Employed and Use of Family Labor

	Firms		Number of firms employing family members		
	Number	%	1-2	3-6	Total
Firm size (<5)	51	68.9	12	3	15
Firm size (6-10)	12	16.2	3	5	8
Firm size (11-30)	4	5.4	1	1	2
Firm size (31-100)	2	2.7	1	-	1
Firm size (>101)	5	6.8	1	-	1
Total	74	100.0	18	9	27

Source: Romania rural finance survey 1997/98.

Previous work on small private farmers in Romania found that significant access constraints to credit existed and affected the financial viability of farms and their potential to diversify into non-farm activities (Heidhues, Davis, and Schrieder). Similarly, the present survey of non-farm SMEs found that access to finance is an important issue to the development of non-farm SMEs. The respondents identified a number of other constraints to SME development, such as insufficient road, communication, and market infrastructure, and widening gaps in the relative prices. Apart from these bottlenecks, deficient price information systems and lack of extension and other consulting services offering technical expertise represent impediments for potential entrepreneurs and existing SMEs.

Breitschopf and Schrieder in their study of rural development in Romania (utilizing the Brasov and Dolj sample from the same survey) found that inputs, institutions, infrastructure, and employee training have a strong influence on SME productivity and revenues. Their regression analysis produced the following results:

- Capital is not a constraining factor for SMEs in rural areas. As their marginal return of capital is low, the SMEs either operate inefficiently or have to deal with other constraints, such as lack of raw materials.
- A high capital efficiency leads to sufficient liquidity and not vice-versa.
- The positive impact of labor input and employee training on capital efficiency combined with the high level of education of SME managers reveals that the major bottleneck is qualified education and vocational training.
- Neither infrastructure nor contacts with institutions show significant values. This may be a technical effect attributable to lack of variability in the sample, as infrastructure quality was positively evaluated by the majority of the respondents.

As most of the new rural SMEs in Romania are in their infancy, the government is currently considering a number of potential interventions: investment grants for rural entrepreneurs starting or developing a business and subsidization of startup activities through small business development centers or business incubators. In Romania, but also in most of the other CEECs, some of the social problems related to agricultural reform, e.g., over-staffing or hidden unemployment, an aging rural demographic structure, low incomes and rural depopulation need to be addressed by an effective job-creating rural development strategy that helps retain and usefully employ the younger rural population.

POLICY OPTIONS FOR NFRE IN THE CEECS

To date for most multilateral donors, the single most promising way of achieving greater NFRE improvements (particularly in income and equity) has been to put emphasis on employment and creation of micro, small, and medium-sized enterprises (to which we collectively refer as SMEs). Many donors and NGOs have emphasized SME promotion and credit provision to SMEs as the core of their non-farm rural employment interventions in both transition economies. Disguised unemployment and declining productivity in the agricultural sector in the CEECs require shifting labor into the non-farm rural sector. Market failure in transition countries has often led to the misallocation of production factors resulting in excessive rural labor market stress because of:

- the slow expansion of the private sector which could absorb the excess labor (from disguised unemployment in the private agricultural sector);
- the low formal qualifications and high average age of the agricultural labor force;
- the high market transaction costs for goods, services and production factors; and
- mobility constraints, which are exacerbated by shortages on the housing market in transition economies.

Lessons from the Czech and Romanian NFRE Case Studies

The case studies in the Czech Republic and Romania show that education and the lack of working capital are key elements for non-farm SME development and entrepreneurship. Additional bottlenecks include under-developed infrastructure, communications, and institutions. Even in a fast-track accession country such as the Czech Republic, the level of infrastructure is significantly lower in rural areas than in urban areas. This may have a detrimental effect on the competitiveness of rural firms and on the opportunities for income diversification into non-farm activities.

In both the Czech Republic and Romania, technical assistance in terms of adequate extension and consulting services to support SME creation and diversified (income-generating) non-farm activities needs to be developed both regionally and nationally. Some of the policies and institutions being established in the Czech Republic as part of the SAPARD effort (e.g., training courses for SAPARD, rural business development and training consultants nation-wide) can be adopted by Romania. The Czech Republic has a more developed regional advisory and information service center network than Romania, but this can still be improved. The Czech Republic has quite significant regional differences and has probably made more progress than Romania in addressing this from a regional development perspective.

In both countries, entrepreneurs appear to have been motivated to enter the non-farm sector for demand-pull reasons. Unemployment among other distress-push factors seems to play a lesser role in determining entry to non-farm enterprise startup. However, there has been very little empirical investigation of these issues. The micro enterprise sector is generally overlooked or under-represented in official data and surveys because many informal enterprises are unregistered, being based in the household or in temporarily rented space, or not reported in surveys due to their small size or their unofficial nature. Reasons for temporary migration to find

paid employment may also be relatively hidden, as remittances are likely to be under-reported due to their unofficial nature and due to poorly developed or unreliable banking systems for effecting international transfers of funds. More data and information need to be generated about the nature of CEEC non-farm activities, part-time farming, sideline activities and non-farm incomes across the agricultural sector. This will enable more informed formulation of appropriate rural development objectives and planning measures for both on-farm and non-farm activities.

Policy and Institutional Environment Conducive to NFRE Development

Governments have a key role to play in supporting the development of non-farm rural enterprise activity. Key means through which the government can support rural enterprise development are ensuring that the legal and judicial system supports low-cost contract enforcement, and ensuring that the policy “playing field” is level in terms of ease of registration, taxes, and investment incentives for both small and large enterprises (Levitsky). The government can also play an important role in promoting a socio-cultural context that values entrepreneurship. A more open and positive attitude towards the informal enterprise sector needs to replace the prevalent negative attitude that tends to over-regulation and control rather than measures to support such enterprises and assist them in joining the formal sector.

It is important that biases at the economic policy level be removed (e.g., distortions in capital markets caused by government intervention in interest rates and socially owned agricultural land). Effectively functioning markets will provide the correct signals to encourage investment and specialization in areas of comparative advantage, will promote the development of the private farm and non-farm sectors, and will encourage efficient and realistic allocation of financial resources. Incentive-distorting measures that have been implemented to support the rural economy should be removed, except perhaps where they compensate for past deficiencies that have impeded growth in key economic areas. With respect to the remote rural areas, policy reforms are needed to encourage mobility, promote efficient rural markets, and better target social assistance.

Factors acting as constraints to the development of the private farm sector, such as poorly developed or inefficiently functioning financial markets and lack of marketing information, should be recognized as also affecting the growth of the non-farm sector. Provision of rural financial services is key to both the farm and non-farm sectors, and it may be that a healthy non-farm sector attracts financial service providers who would otherwise have been put off by the increased risks and complications of agricultural credit. The World Bank is now shifting from lines of credit through banks toward the creation of interim sustainable non-bank intermediaries and toward addressing the reasons why private banks do not lend to rural areas (World Bank 2000). Appropriate non-bank intermediaries can include finance companies, savings and credit associations, and even NGOs (depending on the legal and regulatory framework of each country). Measures to address the lack of rural financial institutions include reforms to the legal framework to recognize non-mortgage collateral, strengthening of the courts system to speed up default and debt collection proceedings, development of leasing laws, revisions of the financial sector regulations, and strengthening of banking supervisory agencies.

Institutional reconstruction is needed to mitigate market and government failures and to complement opportunities offered by the market. Institutional change takes time and cannot be implemented in an abrupt way, with more direct interventions needed in the meantime. NFRE development strategies should not only provide incentives for the rural population to engage in profitable non-farm rural employment activities but should also be based on a consensus among interest groups involved in the reform process. Consensus and credibility help form a strong base for successful reforms.

Infrastructure and Services

A minimum level of efficiently functioning infrastructure is necessary to enable non-farm activities in rural areas to develop and thrive. Transport accessibility plays an important role in the development of local industries as well as agriculture. Improved access in rural areas opens up potential new markets, improves the viability of rural service activities, and introduces higher levels of competition. Social safety nets, infrastructure, and education opportunities in remote rural areas clearly require increased investment and attention. This will help promote the development of NFRE and the private sector, and over time redress the imbalance between urban and rural areas. Attention should be paid to the type of employment creation being promoted in the rural non-farm sector, i.e., unskilled and relatively poorly paid jobs, or more highly skilled and specialized jobs. Barriers to entry to employment in NFRE need to be addressed. Vocational training improvements should be utilized to assist those within agriculture to shift to other jobs or in the case of children from farms to have sufficient skills to avoid having to enter the agricultural sector.

The provision of public services and infrastructure to rural areas is key to attracting investment and promoting SME development. Population centers in rural areas can constitute key growth points. Enterprise support measures may include business incubators, phased financial assistance to startups, advisory and networking centers, and training and consultancy services for SMEs. The needs of SMEs and small farms could also receive priority in publicly funded agricultural research and extension.

Emerging trends in the provision of rural infrastructure with relevance to policy are: (a) private contractors and local communities taking key roles as implementers and managers of infrastructure at a local level; and (b) employing labor-intensive methods in infrastructure projects, in recognition of the important stimulus to the economy of rural areas that such employment may provide. Solving the issue of financing for rural municipalities in poorer CEECs or in economically depressed regions is a difficult issue. Where rural social services and infrastructure have been transferred to the municipalities in the context of decentralization processes, the question of the financing is in many cases not fully resolved. In the faster-track accession countries effective fiscal and administrative decentralization processes, private sector activity, and a decline in unemployment has led to improved ability of rural areas to provide social services and infrastructure. However in the slower-track accession countries rural infrastructure, such as roads, sewage, telecommunication and social services, is in a dilapidated state. While the development of municipal debt markets is important in providing municipalities

with commercial sources of credit, central government transfers and external donor support may have to play a role in less economically favored municipalities.

Policies that Foster Positive Linkages with the Agricultural Sector

A number of recommendations relating to agricultural support policies can be made to foster the positive linkages between the farm and non-farm sectors. First, it is necessary to remove the distortions to rural markets (including land markets, produce markets, financial markets, etc.) resulting from government policies or subsidies. Second, the privatization of the agro-processing sector should be treated as a priority task, because it is expected to promote competition within sectors and at the same time encourage investment. Third, policies that favor the farm sector at the expense of the non-farm sector should be abandoned, as they are detrimental to the development of the rural economy and the livelihoods of those dependent on it.

Subsidiarity, Participation, and Decentralization

The accepted role of government in the provision of enterprise support services is changing, with the idea of subsidiarity gaining prominence. Subsidiarity in this context is essentially the idea of “who can do what best”, meaning that responsibility is delegated to the lowest possible level and that government focuses on its own unique role rather than getting involved where private sector markets should operate (Gibson). Governments need to shift from a model of direct service provision to more innovative models of service provision in partnership with the private sector. In remote and economically depressed rural areas the government may have to play a more dominant role due to lack of interest, absence of a strong private sector, and low levels of demand for services, but civil associations could still play a key role.

Equity considerations logically imply the full participation of poorer people in rural policy formulation processes. They need to be consulted on the priorities for public investments from which they are expected to benefit or through taxation help finance. It is therefore important that methods are used or developed whereby this participation is facilitated both prior to a non-farm rural development project and through subsequent evaluations of it.

Decentralization of government functions to the district level is key to facilitating responsiveness in decision-making to specific local conditions, and thereby helping ensure better distributional characteristics. Decentralized decision-making may indeed be necessary due to the heterogeneity of the rural non-farm sector, which leaves little scope for general broad policy descriptions (Lanjouw). The process of decentralization should be accompanied by capacity building of local government, local-level democratization, and the transfer of fund-raising powers from the center. Decentralization is more effective in providing services if four conditions are satisfied: (a) local governments are not vulnerable to capture; (b) local governments have access to adequate local financing sources; (c) there are no inter-jurisdictional externalities in service provision; and (d) local governments have all the bargaining power and access to relevant cost information vis-à-vis public enterprise managers (Bardhan and

Mookherjee). If any of these conditions is absent, decentralization may actually perform worse than a centralized system.

CONCLUSIONS

The non-farm rural sector has an important role to play in the CEECs in promoting the transition to a market-led economy, accession to the EU, and the development of rural areas. It enables rural households to diversify income sources, smooth income streams, and more effectively manage risks. The relationship between the farm and non-farm sectors takes many forms, but on the whole is a beneficial one, with positive income and expenditure multiplier effects promoting a more viable rural economy.

Country case studies show that NFRE activities in accession countries are usually market-based and trade-driven. Therefore, appropriate rural development strategies and policies should be market based, e.g., oriented toward small-scale enterprises, including agro-industries, agro-processing, business services, marketing, trade, and financial services. Enterprise support to promote NFRE activities should be based on market principles, responding in a low-cost and flexible way to identified needs and demands for services by SMEs. Governments and donors should seek to promote the role of the private and civil sectors in providing enterprise support services, acting as facilitators rather than service providers where feasible.

In both case study countries effective support of NFRE requires coordination between sectors through established mechanisms and linkages. Therefore, the development of NFRE requires operational links between institutions (e.g., ministries) and organizations (e.g., development banks, commercial services). It also requires that governments play an enabling role creating linkages between partners, not separating them and locking them into “sectors” and “departments.”

There are considerable challenges and opportunities for rural areas in the CEECs in the context of the EU accession process. Enterprises face the opportunity of potential new markets and the challenges of increased external competition and compliance with EU import grades and standards. To adapt successfully, a minimum level of rural infrastructure and the provision of enterprise advisory and support services are needed. Investment in education, the elimination of market distortions, and continued privatization and demonopolization are needed for economic growth in the non-farm sector to be equitable and to benefit the rural poor.

As opportunities to earn remittances from employment in the EU will increase, the banking sector needs to develop payments transfer mechanisms and to improve their attractiveness to depositors in order for these funds to benefit the rural economy through increased bank lending in the rural sector. Investment in property and land for leisure use in countries bordering the EU will increase if these countries manage to ensure personal and investor security, improve transport infrastructure for accessibility, and upgrade utilities telecommunications and electricity. Key policy issues for CEECs in the context of EU accession include the financing of necessary investments in less favored rural areas, building an

institutional environment conducive to enterprise growth and poverty reduction, and ensuring positive results from decentralization processes.

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Natural Resources Institute
University of Greenwich at Medway
Central Avenue
Chatham Maritime
Kent ME4 4TB
United Kingdom

Tel: +44 (0)1634 883199
Fax: +44 (0)1634 883706
Email: nri@greenwich.ac.uk
<http://www.nri.org/rnfe/index.html>