

Crețan, R., Guran-Nica, L, Platon, D and Turnock D.(2005),
Foreign Direct Investment and Social Risk in Romania: Progress in
Less-favoured Areas), in
Foreign Direct Investment in Eastern Europe (edited by D
Turnock), London: Ashgate, 305-348

Chapter 15

Foreign Direct Investment and Social Risk in Romania: Progress in Less-Favoured Areas

Remus Crețan, Liliana Guran, Dan Platon and David Turnock

Introduction: Social Risk in Romania - Unemployment and Stress

The geographical imbalance in FDI in the states of the region is a striking feature and România is no exception (Guran-Nica 2002). Because of the social risks that arise it is appropriate to consider both the opportunities and the barriers presented by some of the poorer regions. There were substantial inequalities within Romania under communism but they were largely contrasts between urban and rural areas in terms of living standards and job opportunities, along with problems in Moldavia in general on account of a relatively rapid population increase which outstripped the available employment and necessitated migration to other regions, especially Transylvania. Under transition the decline in employment has impacted heavily on industrial regions, especially those dominated by mining and heavy industry where the highest salaries were paid under communism. The proportion of industrial employees within the total active population fell from 36.9% in 1990 to 28.8% in 1994 and 27.1% in 1997 and 23.2% in 2000 through the industrial restructuring and risk minimisation policies of the transition years. Some of those dismissed found employment in the tertiary and primary sectors, but the unemployment rate rose from 3.0% in 1991 to 10.9 in 1994 and then fell back to 9.1 in 1997 before rising again to 10.5% in 2000 after the government embarked on the restructuring of the mining sector during 1998-9: exacerbating an already-serious poverty problem (Puwak 1992) - for although the

rates are modest by ECE standards a major consequence of restructuring in Romania has been the growth of subsistence farming. Stress has given rise to increased criminality and crises in labour relations involving strikes and sometimes-violent demonstrations (Ianoş et al. 1996). At the same time, the predominantly rural-urban migration flow was reversed and there is a substantial movement from the rural areas abroad (Grigoraş 2001).

Until 1994, the highest unemployment rates occurred in Vaslui and Bistriţa-Năsăud counties (over 20%), followed by Neamţ, Tulcea and Botoşani (over 15%) (Figure 15.1). The list included counties which had benefited disproportionately from communist industrialisation in the later years (post 1966) and were now losing traditional markets and encountering raw material supply problems. Meanwhile, the mining sector (still heavily subsidised by the state in the early transition years) helped to keep rates low in Hunedoara (8.3%) and Gorj (4.2%). But the decision to restructure the mining industry pushed Hunedoara to the top of the table (with over 15% unemployment during 1997-2000), followed by five counties with over 13%: Botoşani, Neamţ and Vaslui in Moldavia, Brăila in Muntenia and Vâlcea in Oltenia. So the distribution of labour conflict changed. In 1993, the highest levels were recorded in Covasna, Dolj, Harghita, Maramureş and Tulcea counties with many small wood-processing enterprises that were privatised relatively early and suffered losses in employment that provoked resistance. Strikes also occurred in the large engineering and textile industries. But in 1997, the highest levels of conflict occurred in Bihor, Constanta, Dâmboviţa, Dolj, Hunedoara and Timiş counties: a major transformation in the case of Dâmboviţa and Timiş which had recorded no conflicts at all in 1993. After 1997 conflicts continued at a high level with continuing reorganisation linked with pressure on government to meet targets set by the international financial institutions. However there was only a partial correlation between unemployment and labour conflicts. In 1993, the highest unemployment rates occurred in Vaslui and Bistriţa-Năsăud (over 20%), followed by Neamţ, Tulcea and Botoşani (over 15%), yet labour conflicts reached their highest levels (in relation to the population) in Covasna, Dolj, Harghita, Maramureş and Tulcea counties. Only Tulcea appeared in both lists. So it seems that some conflicts arose through anticipation of redundancies and the desire to defend jobs; in turn reflecting variations in militancy and the effectiveness of the trade unions (Guran-Nica and Turnock 2000).

Risk became very evident in the social sphere through family instability and criminality. Nuptiality was encouraged under communism by full employment and housing assistance - with stability bolstered by judicial 'counselling' and taxes imposed on divorces. But divorces increased sharply from 17.1% of all marriages in 1990 to 25.7% in 1994 before falling back only slightly to 23.6% in 1997. High divorce rates of over 30% occurred in the southern half of the country where nine counties were experiencing severe economic problems. Meanwhile, criminality rose from 160 per 100,000 of the population in 1990 to 421 in 1994 and 496 in 1997, reflecting both economic difficulties and an element of voluntarism following the demise of the former authoritarian regime (Fenn & Keil 1994), though there are now signs of a decrease. The spatial distribution remained fairly steady in highlighting a group of

counties in the south with the highest values: Constanța, Gorj, Hunedoara, Ialomița and Mehedinți. Again, there was only a partial fit with the unemployment pattern for while dire poverty - arising from job losses and low welfare levels - could be invoked for Gorj, Hunedoara and Ialomița - other factors applied in Constanța and Mehedinți, including illegal border traffic. Yet there was by no means a perfect correlation between unemployment and the indicators selected to measure social stress. Although Moldavia experienced heavy unemployment in the early 1990s and clearly had a severe poverty problem, it has remained relatively stable. Part of the explanation may be a large rural population benefiting from land restitution which has restored peasant proprietorship, while union activity was reduced as unemployed people returned home with severance pay - often from factories in distant parts of the country: hence the difficulty of focusing on a specific grievance. On the other hand, Brașov was the scene of unprecedented violence in November 1999 when workers from the 'Roman' truck factory attacked the prefecture, although this city (and county) was experiencing relatively low employment and has always been among the most developed regions, with a strong and complex economy (dominated by engineering) attracting migrants from all parts of the country. The demonstrations were mounted in support of wage increases (to bolster falling living standards) and withdrawal of redundancy threats by the management of a near-bankrupt enterprise. It is evident that Brașov has a capacity for militancy because a challenge was mounted in the city against the Ceaușescu regime in 1987.

However there is close correlation between social instability and unemployment in Hunedoara county in southeastern Transylvania, where the secondary sector accounted for over 40% of the active population. The Jiu valley is Romania's major hard coal producer and the metallurgical industry is also very strong. However, although protected under communism, when the growth of employment attracted many young people from Moldavia, as well as the surrounding areas of Oltenia and Transylvania, the mining industry will only be viable in the market economy context after drastic reorganisation and down-sizing (Săuleanu and Pârlea 1997). Yet the miners have deeply resented the loss of their privileged status and have demonstrated a propensity for violent action. Living standards began to fall in the early 1990s (though earnings remained above-average and there was relatively little unemployment), while the amenities of the Jiu Valley and the limited qualifications of the workforce discouraged diversification. Opposition to reform was demonstrated on the streets of Bucharest on three occasions in 1990: in January and February when counter-demonstrations were staged in support of the conservative Iliescu presidency; and again in June when the opposition's long-running 'occupation' of Piața Universității was brought to a violent end. In September of the following year the miners again arrived in special trains to protect their wages and defend their industry against the reforms envisaged by the Roman government: the outcome was the dismissal of the prime minister. Although it is possible that the miners were manipulated by conservative political forces - including the demagogic union leadership of Miron Cosma ('the black prince'), high social risk rendered the miners amenable to intervention. In 1998-9 a fifth 'mineriadă' was launched against the Vasile

government's policy of mine closures to press demands for higher wages and enhanced redundancy payments of \$10,000. On this occasion however the establishment was wholly opposed and - after public transport was denied - the march of 15,000 miners was eventually halted by force in Vâlcea county well short of the capital. A further (sixth) expedition occurred in February 1999 after Cosma was convicted (in his absence) by the Supreme Court and sentenced to 18 years imprisonment for actions against the state dating back to 1991. Instead of staying at home where he might have been safe from arrest, he chose to make a defiant gesture by leading a further march on the capital, but only to be arrested along with his entourage when his 'black army' of 3-4,000 was again halted soon after it had passed beyond the limits of Hunedoara county. Despite limited concessions, the rationalisation in the Jiu Valley has continued and many miners have returned - with their redundancy payments - to their places of origin. At the same time, the government demonstrated its authority in the eyes of the global institutions and foreign investors. But social risk will remain high while sufficient alternative employment is lacking. However, the homogeneity of large mining communities has been undermined by restructuring programme - as many young people find their way abroad, with Italy and Spain as particularly popular destinations - while the centre-right government of 1996-2000 introduced regional development policies in line with preparation for EU membership.

Regional Development Approaches

The problems of transition have provoked deep misgivings over Romania's European aspirations and provided minority support for an isolationist stance rooted in the belief that Romania should nurture its own values and protect its physical and human resources from harmful external pressures (Marga 1993; Tismăneanu 1997). But since 1996, Romanian governments have shown a readiness to undertake major reforms while complying with the guidelines set by international financial bodies (IMF and the World Bank) in order to retain a stable business environment and avoid the hyper-inflation crisis suffered by Bulgaria in 1997. And despite a strong nationalist showing in the 2000 election, the European agenda has retained centre stage through greater emphasis on social needs and enhancement of human capital. Attempts to limit social risk have included retraining and encouragement of SMEs through incubators and subsidised credits which provide coping strategies for some redundant workers. Regional policy was launched in 1996 - an election year - with programmes for certain deprived rural areas (Apuseni Mountains, Danube Delta and the counties of Botoşani, Giurgiu and Vaslui) covering infrastructure (including salary premiums to retain professional staff), agricultural development and job creation through SMEs and fiscal concessions. But in line with the EU system of cohesion funding, the new government created eight development 'NUTS II' regions in 1998 (Guvernul României 1997). Subject to certain specific constraints - such as Alba county's desire not to be in the same region as its powerful neighbour, Cluj - Romanian social scientists identified

functionally-coherent areas polarising around major provincial cities and near-equality in population (in excess of two million) as the basis for durable economic and social development including CBC (Figure 15.1). Meanwhile local government remains grounded in the county ('județ') system inherited from communism, which has not been seriously challenged apart from the possible restoration of (a) some of the old counties suppressed after 1950 and (b) an intermediate tier between county and municipality (Săgeată 2003). The regions have their own development councils and agencies with headquarters in each regional centre (selected from the available county towns) and they have responsibility for the formulation and implementation of development programmes. Councils - consisting of representatives of the constituent counties with respect to county councils, municipalities, other towns and communes - determine policy, while the corresponding agencies (acting as non-governmental, non-profitmaking bodies) enhance attractiveness and encourage investment by combining promotional work with the administration and monitoring of PHARE programmes. The regional organisations are backed by a national council and a national agency to approve EU structural funding and allocate resources from 'Fondul Național de Dezvoltarea Regională' (the national regional development fund: NRDF). Cognisance must also be taken of the National Development Plan which (for 2004-6) seeks to increase competitiveness and develop private sector; modernise infrastructure; develop human resources and social services; modernise agriculture and the rural areas generally; support research and technology; and protect the environment.

While there are historic contrasts between regions - with Ilfov (covering the Bucharest area) and the North East marking the extremes - the planners have been particularly careful to emphasise the variations that exist within most regions between stronger and weaker counties. Hence the new programme is commended in part as a means of limiting the danger of polarised sub-regions through action to combine stronger and weaker counties (Ramboll Group 1996). For example, while the West region as a whole is doing relatively well and is poised to develop its international relations, there are also serious problems of unemployment and the internal contrasts are very evident when Caraș-Severin and Hunedoara are compared with Arad and Timiș. Hence, "growth poles located at the border between centre and peripheral sub-regions could play an important role in solving regional problems" (Ramboll Group 1997 p.5). This means addressing unemployment in depressed industrial regions but also assisting agriculture where this is the key to the poverty problem. Understandably, some of the weaker counties may be unhappy to see their regional centre established in a strong city: so the South East preferred Brăila to Galați, while the Central region opted for Alba Iulia (despite its position at the western extremity) and in the South rejection of both Pitești and Ploiești was followed by a contest between Alexandria and Călărași in which the latter prevailed. While the regions encourage enterprise from all quarters, with a strong emphasis on the promotion of SMEs domestically, FDI is a key consideration. Investments of over \$1.0mln during 1990-2000 total \$2.86bln, equivalent to \$127pc nationwide but with regional variations between \$605 in Ilfov and \$17 in the North East (Table 15.1). Ilfov (comprising mainly Bucharest and its suburban fringe) has taken 59.9% of the total,

with particular emphasis on the tertiary sector (79.8%) compared with light industry (58.8) and heavy industry (30.4). But a number of provincial cities are also doing well, particularly Cluj-Napoca, Craiova, Ploiești and Timișoara, and two small towns (Mangalia and Sebeș) have per capita rates well in excess of Bucharest which scores \$789. Of course, only in the case of greenfield investments is there real locational choice, but in such cases investors certainly appreciate qualified labour and location in transport corridors. Even so there may well be a need for linkages with firms already established, as in the case of a German-owned Schweighofer furniture enterprise which located in Sebeș because the existing Frati (Italy) board factory could absorb the waste.

Table 15.1: Distribution of large foreign investments (over \$1,0mln) 1990-2000 (\$mln)*

Region	Sector			Total	\$pc	D	City	Total	\$pc
	A	B	C						
Central	55.42	128.59	55.99	239.99	90.8	20	Sebeș	55.28	1876.4
Ilfov	233.27	536.53	941.02	1710.82	604.8	13	Bucharest	1586.61	789.2
North East	8.29	55.94	2.64	66.88	17.5	13	Iași	15.89	46.0
North West	47.47	58.21	126.99	187.52	81.8	16	Cluj-Napoca	118.94	361.2
South	68.14	111.69	7.68	187.52	54.1	6	Ploiești	154.18	619.1
South East	58.91	21.40	23.34	103.65	35.3	11	Mangalia	55.17	1252.8
South West	184.78	11.86	2.39	199.04	82.9	4	Craiova	170.75	546.6
West	110.47	103.87	19.13	233.42	114.4	12	Timișoara	250.99	458.2
Total	766.72	912.09	1179.19	2858.00	127.4	95			

@ town with the highest total investment in the region

A heavy industry (mining, metallurgy, engineering, chemicals, building materials)

B light industry (food processing, wood processing, textiles and clothing)

C services (banking, commerce, insurance, transport and other sectors)

D number of locations (by municipality)

Sources: Romanian Development Agency and National CCIA.

Apart from conventional economic profiles, investment decisions may also be affected by incentives enhancing the attractiveness of certain locations. First, a programme for industrial parks is under way (2002-5) to improve regional economic infrastructure: a budget of ROL583mld covers technical assistance and non-reimbursible help for local authorities and/or domestic and foreign private interests providing at least 70% of costs for a fully serviced industrial park or at least half the cost of a software park (subject to a maximum grants of ROL20mld and ROL10mld respectively). The network will thus depend on local initiatives and in particular progressive local authorities who can generate capital to establish a greenfield park or redevelop derelict and polluted sites (where owners are agreeable). In the Central Region the regional development agency (RDA) has combined with local authorities to create the greenfield Mureș Park (49ha) at Vidrasău (Ungheni) near Târgu Mureș airport; while the local authorities of Sibiu and Sura Mica along with the county council and the CCIA - supported by USAID, a society for technical cooperation ('Gesellschaft fur

Technische Zusammenarbeit') and Sibiu's Romano-German Foundation - are developing the 95ha Sibiu-Șura Mică Park where factory lots of 2.8-10.9ha are available. Another local authority venture concerns a site close to the future motorway between Alba Iulia and Sebeș. These ventures should be very successful; being located - as the developers point out - in the centre of the country in an area 'bursting with a renewed spirit of free enterprise and entrepreneurship' with 'business-friendly local governments and agencies' as well as good transport and telecoms, a skilled workforce, competitively-priced land, training facilities and consultancy services. Meanwhile, in addition to Șelimbăr near Sibiu, private ventures are proceeding on greenfield sites at Odorheiul Secuiesc and Sfântu Gheorghe, aside from the Eurocorridors, while the parks at Cugir, Gheorgheni and Zărnești are based on existing factories than have excess space. So it is evident that some small towns are also getting involved and the park programme may be helpful in drawing capital to high unemployment areas.

Second, following precedents established on the Danube in the 19th century and again under communism in the town of Sulina in 1978, an agency for free zones ('Agenția Zonelor Libere') was set up in 1991 to administer sites where economic activities would be free of customs duties. Starting in 1992, the first zones appeared on the Danube and Black Sea coast (Brăila, Constanța-Sud, Galați, Giurgiu and Sulina) but another now exists at Curtici-Arad, with further possibilities at Iasi, Oradea, Otopeni and Timișoara (Caraini and Cazacu 1995). The aim is to attract business connected with exports since all the zones are in border areas on major international transport routes but Guran-Nica (1997) also refers to a strategy of boosting employment along the Danube which tends to lie in the shadow of the metropolitan growth zone around Bucharest. So far, foreign and mixed investments have been quite small except at Galați where there are three involving more than \$1.0mln and eight others greater than \$100,000: in food/light industry, engineering, wood, chemicals, commerce and tourism. Furthermore, the government negotiated a RICOP programme for industrial restructuring and professional reconversion in certain counties, followed in 2001 by 11 'Zone de Restructurare Industrială' (industrial restructuring areas: IRAs) covering groups of towns and industrialised rural communes in several counties. All the eight regions apart from Ilfov have interests in these areas (two each in the North East, South East and South West, one each in the other four and one shared between the Centre and North West) (Figure 15.2). Substantial financial assistance for SMEs became available in these zones in 2003, with the RDAs permitted to promote particular sectors. However it must be emphasised that this scheme does not exhaust the help given to SMEs which also benefit from a range of programmes, each of which usually applies to particular parts of the country - and not least the rural areas which have been benefitting since 2003 from the EU SAPARD.

Third, the term disadvantaged areas ('regiuni defavorizate') or less-favoured areas (LFAs) has been adopted for areas affected by the government programme for restructuring in the mining industry which suffered particularly badly through the opening up of the Romanian economy to global forces. After powerful support under communism when the country's natural resources were used in preference to imports -

with virtually no regard to the real costs incurred - the massive losses involved under market economy conditions had to be addressed by radical measures taken by the centre-right government in 1997, combining redundancy packages for miners with efforts to provide alternative employment. The World Bank provided a \$44mln loan to finance the closure programme which was a significant factor in reducing employment in mining from 175,000 in 1977 to 67,000 in 2003. According to arrangements made during 1998-9, developers in LFAs could benefit through fiscal concessions for 3-10 years in respect of new business where the unemployment rate was 25% higher than the national percentage; a single industrial branch accounted for over half the salaried population working in industry; and/or where massive lay-offs (due to the liquidation, restructuring, or privatisation) affected more than a quarter of the permanently-domiciled active population; and where an adequate infrastructure was lacking. New enterprises (whether trading companies with majority private capital, family associations or individuals) obtaining a 'certificate de investitor' were exempted from profits tax and all taxes (import duties and VAT) on equipment, buildings, transport and land - provided the relevant activity (farming, services, trade or environmental protection) was located in the zone along with the headquarters. Also, a development fund was provided for the LFAs to stimulate exports, underwrite external credits and finance investment programmes to enhance social capital. Although the law made no specific reference to mining, all 25 zones created during 1998-9 were linked with restructuring in this industry and had ten years duration (Borcoş & Virdol 2002). And although 13 non-mining areas subsequently gained recognition these were all given just three years duration except the four designated in 2000 (which have a life of ten years, but five in the case of Hunedoara) (Figure 15.2 and Table 15.2). The scheme was looked on with some concern by the EU which desires a 'level playing field' for economic development. Hence new rules for LFAs imposed in 2003 restricted the fiscal concessions to customs duties on raw materials (except for the meat industry) and removed the concessions on profits tax from new ventures. Furthermore, since 2000 the qualifications for LFA status have changed to total unemployment three times the national average (as well as isolation and poor infrastructure). Unemployment in the LFAs in mining areas nowhere exceeds double the national average while nine are actually below average (Timofticiuc 2003). Hence some areas approved for designation in 2001 were not confirmed. It would appear that LFAs have in a sense been overtaken by the broader IRAs - within which most of the LFAs are now situated. However, the handbook for applicants seeking finance for SMEs in the IRAs is quite categorical about the LFAs having an extremely difficult socioeconomic conditions (MDP 2003 p.87) and the SWOT analysis for each IRA highlights the relevant LFAs as offering particularly attractive opportunities.

Table 15.2: Distribution of LFAs and IRAs by region

Region	No	Sq.kms	LFAs			Yr.1	Yr.2	IRAs		
			#	Pop'n	#			Towns	Pop'n	#
Central	5	1567.5	4.6	104.5	3.9	1998	2000	24	80.2	29.7
North	5	3983.0	8.1	296.7	7.9	1999	2002	25	1143.0	30.5
East										
North	10	4276.9	25.2	446.5	15.3	1999	2003	21	602.8	20.7
West										
South	4	329.5	1.0	65.4	1.8	1999	2001	13	501.0	14.1
South	4	355.9	1.0	38.0	1.3	1999	2001	13	1051.6	35.5
East										
South	3	1282.4	4.4	106.6	4.3	1999	1999	20	845.0	34.4
West										
West	7	5098.9	15.9	426.9	20.23	1998	2001	34	802.8	38.0
Total	38	16894.1	7.1	1484.6	6.5	1998	2002	150	5748.5	25.2

: Percentage of the regional/national total.

Yr.1/Yr.2: years when each region's first and last LFAs were established

Population figures – in thousands - are for 1991 (LFAs) and 2000 (IRAs)

Source: Ministry of Development & Forecasting, Monitorul Oficial and Statistical Yearbooks

It should be emphasised that the mine restructuring programme by no means exhausts the scope for recognition of LFAs. For the concept has great relevance to the problems of rural areas in ways removed from levels of unemployment and infrastructure (Nica 1993; 1999). Ianoş (2000 p.180) referred to some "complex disadvantaged areas which ought to benefit by a special development strategy" - with six deserving cases in the Central Region alone - and went on to refer to 'arii profund dezavantajata', distinguishing between areas satisfying one criterion of difficulty and those with several (e.g. isolation, unemployment and poor infrastructure)(Ianos 2001). F.Bordânc (see Bordânc & Nancu 1999) worked for several years at the Romanian Academy's Institute for Agricultural Economics on a viable classification that will recognise different categories of difficulty, while Nădejde (1999) has taken a range of demographic, economic, geographical and social criteria to highlight 15 problem regions across the country. Although no blueprint has emerged that is likely to be politically acceptable as the basis for a special aid programme, these surveys are useful to local authorities and ministries in prioritising their investments. The problems regarding local roads and water-sewage services were addressed by the centre-right government's programme supported by the World Bank (Drogeanu 2000) and the effort continues through SAPARD. But the relief of poverty in areas where the vast majority of people are working in agriculture (often on a largely-subsistence basis) is a longer-term challenge, although there is now a nationwide agricultural advisory service ('Agentia Nationala pentru Consultatii Agricole': ANCA) to stimulate

marketing and food processing. But the pre-accession funding is very modest and it will hardly create the diversified, sustainable rural economy envisaged in the early transition years (Pașcariu 1993) or overhaul run-down local services to realise the vision of modern community facilities in key villages (Voiculescu 1999). The full range of possible criteria has been laid out in a regional development strategy for Timiș county and illustrates the wide potentials of the LFA approach (Coifan 1999 pp.123-36). Apart from declining industrial areas, others were backward economically (some specifically for agriculture); poorly integrated with county and national road systems; lacking adequate electrification, transport or water supply; heavily depopulated; marginalised by frontiers; exposed to environmental risk; or carrying great importance for conservation.

The official LFAs have done quite well. While all sectors are represented, 1,624 of the 2,475 certificates issued before July 2001 concerned the construction industry. During the four years 1999-2002, 54,153 new jobs were created (of which 62% were taken by the unemployed): annual totals rose from 7,670 in 1999 to 10,904 in 2000 and 21,142 in 2001, but fell back to 14,437 in 2002 despite further increase in designated areas. However for the years 1999-2001 each of the 39,716 jobs required investment capital of €9,014 and fiscal concessions amounting to €3,147 which critics find difficult to justify when most of the country is disadvantaged in some way. A particular anomaly arises in the case of meat processing because of subsidised imports which undercut producers outside LFAs who use Romanian meat and thereby upset the national market (Timofticiuc 2003). Hence the changes in the rules in 2003 were particularly evident in this industry. Clearly FDI is an important consideration, requiring a "strategic approach to inward investment as well as an integration with a broader longer-term regional development strategy that focuses on existing industrial strengths" (Amin & Tomaney 1995 p.218). However, when it comes to levels of domestic and foreign investment in individual LFAs, figures provided by Popescu et al. (2003) for the original 25 mining areas and also Hunedoara (which includes a small mining industry) point to a highly varied picture. €357.98mln were invested during 1999-2001 which is equivalent to €303.9pc, but €243.54 went to just four LFAs (Baia Mare, Bucovina, Comănești and Stei) where the per capita equivalent was €671.6; a further €76.45mln went to Baraolt, Bocșa, Brad, Filipești, Hida and Valea Jiului (€230.9pc) while the remaining €37.99mln went to the 16 other LFAs at an average rate of just €78.5pc. The foreign component (including the domestic component of enterprises with mixed capital sources) was €40.21mln or 11.2% and it is interesting to see that this ratio was exceeded in several LFAs which attracted little investment overall: Apuseni, Bălan, Borșa and Sărmășag - all in Transylvania where contacts with Hungary and/or Germany are strong. Otherwise the same polarisation is evident with the top four LFAs attracting €27.81mln (€76.7pc), the following group of six €7.70mln (€23.3pc) - and the rest €4.70mln (€9.7pc). However it should be noted the whole picture for FDI is distorted by the 16.52mln invested at Stei (€028.8pc) which accounts for 41.1% of all FDI in the LFAs. At the same time half the LFAs in the top ten were markedly less attractive for foreign investors than for domestic investors for the FDI share was only 6.3% in Bocșa, 4.0% in Brad, 3.1% in Jiu Valley, 2.0% in

Bucovina and 0.3% in Comănești. The technology used appears to be quite low for Ianoș (2000 p.180) referred to interest from a number of firms from Israel, The Netherlands and Switzerland interested in wood processing, ready-mades and dairying in LFAs in the North East. On the other hand in the Central region during 1999-2002 there was a strong foreign interest in Cugir LFA (accounting for 36.4% of all projects) and across the region as whole the foreign contribution was strongest (relative to domestic projects) in chemicals and engineering.

Two examples may be cited to illustrate different aspects of FDI. First, Guran-Nica (2002 pp.145-60) examines a \$1.0mln Italian investment in Moldofil, the Câmpulung Moldovenesc spinning mill (in Bucovina LFA) which was established in 1972 and privatised by EMBO in 1993. An Italian holding company - which included the Romanian-Italian joint company Romalfa (connected with the Săvinești synthetic fibre company 'Melana') in its portfolio - was interested in extending its operations into Romanian spinning capacity that could be supplied from the 'mother factory' of Săvinești (although under communism the mill obtained its inputs by importing natural cotton and drawing chemicals from Brăila, Dej and Iași). However, although proximity to Săvinești was a factor in the decision to acquire the Bucovina factory, quality considerations have resulted in only one percent of the acrylonitrile coming from this source. Instead, virtually all of it comes from Italy, while raw cotton arrives from Syria, Tadjikistan and Uzbekistan. The Italian investment - complemented by Moldofil's contribution through land and buildings (also valued at \$1.0mln) - has provided new technology and opened up global markets. Before 1989 the yarn was used in domestic textile industries in Oradea, Panciu and Satu Mare, with some export to Italy and Turkey. But now, not only are the strong customer links within Romania consolidated ('1 Iunie' Timișoara as well as 'Tricoton' Panciu, 'Croitex' Oradea and 'Ardeleana' Satu Mare - all of whom are now exporting to Western Europe and North America on the strength of improved quality) but a third of the output goes to Hungary and Italy. The workforce has declined to 42.5% of the 1989 level (from just over 800 to some 350) - part of a general decline in employment in the area - but salaries have increased in line with productivity and labour relations have been placed on a more progressive basis.

The second example concerns a potentially very large foreign investments by Roșia Montană Gold Corporation (RMGC) <www.rosiamontanagoldcorp.com>, based in the Apuseni LFA on a 4,282ha concession awarded to the Canadian mining company Gabriel Resources in 1997 (Turland 2002). As a source of gold and silver since Roman times, mining was being undertaken in the 1990s by a state company which had abandoned its traditional underground operations in 1985 and employed 775 workers in an open pit operation in the Cetate sector of Roșia Montană, started in 1970 with obsolete technology. It has now been agreed that the state operation will be replaced by RMGC's modern plant (owned 80% by Gabriel Resources, 19.3% by the SOE 'Minvest' and 0.7% by small investors) which will operate not only at Cetate-Găuri but also at Cirmic, Jig and Orlea during 2006-2024 period, following the pre-construction (1996-2003) and construction (2003-5) phases. Proven/probable reserves of 225.7mln.t are expected to yield 0.55mln ounces of gold and 2.60mln ounces of

bye-product silver each year, using a cyanidation process. The employment and capital investment is very substantial: (a) direct employment of 200-550 (and a multiplier of 400-600) during the pre-construction period - with \$50mln spent on exploration, pre-feasibility and final feasibility work plus ongoing investment of \$125-150mln; (b) employment of 2,000 during the construction phase, plus a multiplier of 6,000 jobs and capital expenditure \$350-400mln; and (c) employment 500 during the operational phase plus the multiplier of 3,000 jobs through contracts with local business in respect of building, supplies, services, repairs and maintenance. This is very encouraging when young people are being forced to work abroad for lack of local opportunities. The fact that Gabriel Resources will take the bulk the profit while the state will get comparatively little (especially in view of LFA incentives) should not obscure the merits of the scheme in terms of economic and social security in the area in the immediate future. However there is a threat to many households and small farms, especially in the Corna Valley where land is needed for the dumping of tailings and overburden. But the resettlement action plan involves new homes and land parcels at three locations in the immediate vicinity - with provision of services and small business development - or monetary compensation allowing people to move where they choose (including apartments in urban areas). The production process was also a cause for concern in view of the pollution in the Tisza valley through cyanide released at Baia Mare in 2000. But a comprehensive economic and social impact assessment (ESIA) has been conducted and there now appears to be a high degree of local acceptance after a long period of uncertainty (Buza et al. 2001). Indeed there should be environmental benefits considering the pollution of streams which has been going on for many years on account of acid rock drainage. Finally, RMGC believes their project is "the first of several new mining projects that could be developed in the Apuseni Mountains region" (Turland 2002 p.16) and since "no single community is overburdened with too much development too fast", Roşia Montană should "become a catalyst for long-term sustainable development throughout the region" (Ibid) though the regional development strategy emerging from the ESIA.

West Region and its Sub-Regional Variations

Here the RDA seeks to promote a region (32,034sq.kms in area with a population 2.05mln: 64.7 persons/sq.km) with the best business opportunities arising through location; not to mention a diversified economy with a qualified workforce, good communications (with immediate access to Eurocorridors) and high agricultural and tourist potential. The modernisation of the region through diverse ethnic groups introduced through the Habsburg colonisation of Banat greatly extended the cultural profile based on earlier contacts between Romanians and Hungarians. Although not the region with the largest non-Romanian population, Romanian Banat must now be area with the largest number of different non-Romanian ethnic groups. And it is apparent that the political climate has been predominantly one of tolerance and mutual respect to the point where all groups are valued as parts of the region's economic and

cultural identity. Nationalism has not significantly detracted from the positive contribution of ethnicity for the human resources of the region. However, the emphasis on agricultural colonisation on the plain was complemented by priority on extractive industries and metallurgy in the mountains. Reșița (Caraș-Severin) has a history of ironworking dating back to 1771 which makes the region one of the longest-established industrial zones in SEE: a situation reflected in urban expansion, early electrification, the growth of a relatively dense railway network and the emergence of food processing industries based mainly on the rich agriculture of the Banat Plain. The capacity of the Reșița metallurgical and engineering complex to act as a mother factory, stimulating a series of production transfers to new locations, also points to a high level of experience and skill. The historic strength of the extractive industries is further extended by Hunedoara's mineral wealth in coal in the Jiu Valley, complementing the long-established working of non-ferrous ores in the Brad area of the Apuseni Mountains to the north. But the model of maximum self-sufficiency adopted under communism has made for painful restructuring because the polluted mining areas have been largely overlooked by foreign investors. The development organisations established in Arad (ADAR), Caraș-Severin (ADECs) and Timiș (ADETIM) with help from Germany's Nordrhein-Westfalen province helped to provide expertise before the wider West Region came into existence. But the attractions of Arad and Timișoara - with a diverse industrial profile and lowland countryside "revitalised by reinstatement of private property [whereby] farmers increase their revenues, develop local services and intensify the village/town relationship" (Ramboll Group 1997 p.31) - have worked to the detriment of Caraș-Severin and Hunedoara where the need for new jobs is particularly critical. The region's per capita GDP is above the national average but the Timiș figure is almost 50% greater than that of Caraș-Severin (although Timiș still scores only 40% of the EU average, it is above the average for candidate countries).

Timișoara, the 'technopolis' and obvious centre of Romania's West Region, is clearly best placed to sustain self-reliant internationally-competitive development with good education/training facilities and research institutes (including a university seeking the status of 'centre of excellence'); and environmentally friendly industry (at an advanced stage of restructuring) with a stock market, business centre and supply networks. It has a network of SMEs to serve large enterprises, good banking and local government support, fiscal incentives and low cost sites and premises. In the early years of transition there were investments in the city from Alcatel, Coca-Cola and Proctor & Gamble, with a second wave at the turn of the millennium which has included the American enterprise Solectron and such German companies as Continental, Draxlmeier and Siemens. Foreign business organisations in the city include a Romanian-German Economic Forum, a Romanian-Dutch Business Centre and 'Biroul de Promovare Economică Timișoara-Karlsruhe'. The Italian presence has been growing strongly through four Italian banks which contribute to one of the largest Italian business communities in Romania (sustaining an Italian language high school, a 'Biroul Italia' within the Timiș County CCIA and the prospect of Italian consulate). A technology park is favoured by investors from the Veneto region, but

more generally a new study of Timișoara - with all-party support - promotes the city as a growth pole in the context of an expanding Europe and a growing Central European Free Trade Association (Ciuhandu 2001). The city could act as a pilot for the adoption of the EU 'acquis' and the process of Romanian integration into the EU generally. An exhibition centre and commercial park are anticipated as part of a satellite town which will help to gear up Timișoara for the creation of 15,000 new jobs during 2000-7 and hopefully a reduction in unemployment from 8.6 to 3.5%; plus a boost in average income by 20%. All this reflects the dynamism of the 'Timișoara model' based on a cosmopolitan mentality of peaceful cohabitation in a multi-national environment; attractive facilities (including land for development) in a privileged location which is being professionally exploited by progressive councils in the both the city and county. Further transport plans will help the city, including motorway construction and the reopening of the Timișoara-Szeged railway (not to mention the benefit of a restored Subotica-Kaposvar link in providing an east-west rail route from the Black Sea at Constanța and the Adriatic at Rijeka. Moreover, the Danube is a major international river and a Eurocorridor in its own right, while the Tisza is also navigable with a modernised port at Szeged in Hungary (also a logistical centre with railway 'piggy back' services to Wels in Austria). Romania could 'plug into' this system through the reopening of the Bega Canal from Timișoara to Zrenjanin (disused since 1958), linked with a port and free zone in the east of the city (all of which should be ready by 2007 with the help of EU finance). Finally, integration between transport modes will be enhanced through a new 'Interporto' facility: a 70ha road-rail facility with 10,000-30,000sq.m of floorspace.

With extensive foreign contacts, the RDA is seeking to promote innovation and its transfer through links between business and science. Arising out of meetings of experts on the business infrastructure and annual fora contributing to the region's innovation strategy, a current preoccupation is the development of industrial clusters through business incubators, technology transfer and industry parks in Arad and Timișoara - assisted by €4.8mln through PHARE as a supplement to the 2001 programme mentioned below, not to mention the Arad-Curtici free zone. This is the motor for a developing region. However intra-regional tensions remain significant. The West Region therefore seeks a restructured agriculture and rural diversification under the guidance of a regional information centre for agricultural problems and a rural development agency. And county plans are supporting such arrangements in respect of small towns and communes with central place functions as centres for non-agricultural functions in predominantly rural area. Integrated local programmes, implemented by SMEs in agriculture, food processing, marketing and tourism (reflecting in part the diversity of ethnic minorities), may be encouraged. The small town of Deta is seen as suitable location for a specialised livestock market and for fruit processing, including production of a range of brandies, while Făget could be a tourist centre for the Poiana Ruscă and a suitable location for a small business incubator (generally linked with the larger towns). Each town should also have an organisation for business people: 'Club al Oamenilor de Afaceri'. Stronger rural centres could also emerge in the Timișoara area at Bethausen, Ciacova, Fârdea, Gătaia and Recaș -

where local halls could be refurbished as multifunctional centres for educational and social-cultural functions - although deficiencies in the infrastructure (medical services, natural gas, roads, telecommunications, water and sewerage) are also highlighted. But the main focus for concern is the IRA of South Banat and the Petroșani Coal Basin which covers four urban groupings (Deva-Simeria-Orăștie; Hunedoara-Călan; Petroșani with Aninoasa, Lupeni, Petrila, Uricani and Vulcan; and Reșița with Anina, Bocșa, Oravița) and a scatter of towns and rural areas: Brad, Caransebeș, Hațeg, Margina, Nădrag, Oțelu Roșu, Tomești, and Topleț (the last-named being grouped with towns in Oltenia). The region also has seven LFAs. Most of the programmes administered by the RDA relate in part to these areas: PHARE 1998 for industrial restructuring, through SMEs, tourism and development of human resources; PHARE 2000 for the development of human resources through restructuring, creation of SMEs and the improvement of local and regional infrastructure; and PHARE 2001 for infrastructure, social services and education with particular concern for economic and social cohesion in the restructuring regions. There are also PHARE programmes for CBC (currently for 2004-6), development programmes for Caraș-Severin and Hunedoara counties financed by the NRDF and special programmes for LFAs dealing with business development and the stimulation of investment and rural activity. In the latter instance, potential entrepreneurs in rural areas may be aware of local opportunities but have difficulty in getting all the information they require: agricultural prices; land availability; and markets. In this connection CCIAAs are drawing up lists to documents the sources of capital, equipment and possible partners.

Restructuring Problems in West Region

The IRA and LFA strategies arise from massive reduction in employment in the large SOEs. In the towns of Caraș-Severin alone - taking the Reșița engineering and metallurgical enterprises (CSR and UCMR, including Arsenal and Reșița-Renk), the Caransebeș engineering works (Caromet), the fabrication company 'Construcții Metalice Bocșa' (CMB), the Oțelul Roșu steelworks (Socomet, now Gavazzi Steel), the Topleț engineering firm Societatea Economică Magheru (Semag) and the Anina mining company 'Miniere Banat' the employment in 2000 was 16,495 - 35.9% of the 46,440 workers in 1989. Unemployment rates have soared although they are difficult to calculate realistically because benefit is restricted: 'ajutor de șomaj' provides 75% of the minimum wage for six months to a year depending on social security payments made; 'ajutor de integrare profesională' offers vocational integration allowances of half the minimum wage for six months for graduates (aged over 18) from education institutions who cannot find jobs within 60 days; and support allowance ('alocație de sprijin') which provides help at a reduced rate. Because the chances of getting a new job through official channels are slight many unemployed people do not register with the Labour Office ('Oficiul Forțelor de Muncă') and the official rates are too low. Hence there can only be intelligent guesses as to the 'real' rate which could extend to the ultimate extreme of considering all elements in the active population (aged 18-62) not known to be in waged employment. In Jimbolia the official unemployment rate is

only 5.7% but consideration of people known to be without work raises the level to 39.6%. And in the seven main industrial centres of Caras-Severin (Anina, Bocşa, Caransebeş, Oraviţa, Oţelu Roşu, Reşiţa and Toplet) the official rate of 8.1% compares with a theoretical maximum of 54.9%. In the individual towns there is at least a difference of 40% and in the case of Oravita the official rate of 12.4% compares with theoretical maximum of 74.0%.

People may return to their rural roots, especially when they have land to provide subsistence, but for many this is not an option and the end of unemployment benefit or redundancy money (generally by 2000 in the latter case for miners) brings hardship which may only be alleviated by money from other family members or means-tested 'minimum income guarantee' (MIG) benefits payable by local authorities in return for casual labour - replacing the old social aid ('ajutoral social') programme in 2002. Hence a frequently desperate situation, as at Călan where lack of work is 'punctul generator de explozii sociale'. The smaller towns often suffer from unmodernised railways and poor local roads and fixed phone systems, partly because decline associated with a 'zona monoindustrială' (Chiribucă et al. 2000) means a reduced local budget inhibiting provision of good business environment attractive to investors. In Călan the defective water system has been blamed for outbreaks of entero-colitis while in Bocşa the football stadium lies derelict since the local engineering enterprise (CMB) is no longer able to support the local team and the adjacent campsite ('tabără') has been disappeared through the theft of wooden huts taken for firewood! Local authorities therefore seek better housing and school buildings and investment in sewage, ecological waste management and more green spaces.

Consolidation of the inherited industry is challenging without private capital since the state sees the remaining SOEs as a drag on the economy and has only limited resources to modernise in the hope of attracting buyers. The experience at Reşiţa has been most unfortunate since the privatisation of the metallurgical works - after investment in a mini-mill involving an electric steel furnace and continuous casting - in favour of the American company Noble Ventures broke down over the division of 'responsibilities' between the government and the company in the context of challenging world market conditions for steel. The plant was taken back into state ownership and production resumed pending privatisation deal with another company (Hillinger and Turnock 2000). Meanwhile the old 'Combinat Siderurgic Victoria' at Călan has been restructured as 'Sidermet' and 11 other companies now employing 1,500 (with hope for modernisation to produce cast iron tubes). Other heavy industries include rolling stock repairs in Simeria. Building materials and construction enterprises have also slimmed down but light engineering firms e.g. producers of car accessories (like 'Volane' in Brad and 'Sogero România' electrical assemblies in Orăştie) have good opportunities if they can meet the quality and logistical requirements of the assembly plants. Logging and wood processing including furniture; textiles, knitwear, leather and footwear all have growth potential (especially wood processing since the raw material is readily available in Carpathian forests). There are also opportunities in livestock farming and food processing (meat, milk and alcoholic drinks, with some processing of medicinal plants). Simeria would like to

introduce a guarantee scheme to take farm produce and process to European standards, along with low interest loans to enable purchase of farm equipment, a consultancy service to achieve high cultivation and veterinary standards and overhaul of drainage and irrigation systems.

There are also small settlements in the rural areas where key industrial plants have closed completely: 'Solventul' at Margina (1999) due to outdated technology and the failure to find new customers when business with Serbia's Pancevo petrochemical plant was lost through the UN embargo; 'Ciocanul' rolling and galvanising mill at Nădrag (1999) and the 'Stitom' glassworks at Tomești (2000): the latter privatised but unable to survive without capital for modernisation when sales proved insufficient to meet the wage and energy bills. These places suffer from lack of managerial expertise; lack of markets for traditional local industry production; a workforce narrowly specialised; no local funds for modernisation; poor services e.g. there are no digital phones away from the main communication axes, no sewage system and little outside help apart from World Bank support for the Nădrag heating system. By contrast a fortunate situation has arisen at the frontier town of Jimbolia where high unemployment arising from the liquidation of several state companies ('Soceram' building materials; 'Canabis' processing flax; and 'Comnutrin' fodder) has been balanced by FDI not only in the privatisation of 'Pantera' footwear (where a Romanian-German venture supports 500 jobs) but in several new ventures: Canadian capital in the 'Valova' bakery (50 jobs); Croatian capital in 'Bolia' footwear (210 jobs); German capital in 'Vogt' electronic components (800 jobs); and Italian capital in 'Fagi' footwear (109). This is in addition to Romanian capital in the privatisation of 'Venus' plastics employing 75. In another border town, Sânnicolau Mare, the creation of over 7,000 jobs in the production of electrical goods by Delphi Packard (Austria) and Zoppas Industries (Italy) has eliminated unemployment altogether. Meanehile, the development of the private sector through SMEs operating in local industry is very slow and a more active strategy is needed to complement the legacy of heavy industry where modernisation will mean further redundancy through higher productivity. On the other hand, tourism tends to attract unrealistically high expectations. Small resorts of Geoagiu near Orăștie and Vața near Brad (the latter recently refurbished by Romtelecom which now has a share of Greek capital) can benefit from the biodiversity and scenic resources of the Carpathians as well as historical-cultural values evident at Sarmizegetusa - the Dacian citadel in the Orăștie Mountains. But the town of Simeria also wants to promote tourism based on bathing in the Strei river and its 18th century 70ha arboretum (containing 150 species and recently refurbished according to a conservation plan). Brad aims at a 100-bed hotel but accepts that tourism is constrained by inadequate promotion and information and also needs improvements in transport systems and the conservation of monuments and nature as well as more accommodation. Orăștie therefore seeks a business centre ('Centru de Afaceri') as well as the development of a local airfield nearby at Aurel Vlaicu.

The LFAs of West Region

The seven LFAs comprise: Brad and Valea Jiului (1998); Bocşa, Moldova Nouă-Anina and Rusca Montană (1999); Hunedoara-Călan (2000); and Nădrag (2001) (Figure 15.3). Seven other areas have tried unsuccessfully to gain LFA status: the individual settlements of Jimbolia, Margina and Tomeşti and the entire mountain region in Arad county where four more extensive LFAs were proposed: Sebiş-Hălmaşiu (one town and 15 communes: 41,127 population); Lipova-Bârzava (one town and six communes: 27,096 population); Beliu-Craiva (seven communes: 17,175); and Săvârşin-Birchiş (five communes: 10,553); all with potential in the forests (including accessory products), tourism, food processing, building materials and light industry. Publicity material for Caraş-Severin's LFAs has been produced through Soros Foundation support for a Romanian organisation promoting democracy ('Fundatia pentru o Societate Deschisă') which cooperates with the County Hall ('Prefectură') and the CCI in Reşiţa. Opportunities are seen in industry, particularly in food processing, timber and furniture and textiles, while agriculture features with regard to livestock rearing, milk production with cereals, fruit growing and viticulture in appropriate areas. The organisation responsible for promoting the mineral exploitation ('Inspectoratul Zonal pentru Resurse Minerale Caransebeş') is trying to develop interest in this domain with respect to coal, gold-silver ores, refractory sand and mineral water. Some concrete results have been achieved over mineral water in the Anina and Bocşa areas at Prednicova and Dognecea respectively, but there has been little progress at Rusca Montană despite considerable potential at the Ruşchiţa marble quarry: dating back to 1886, with attractive stone similar to that of Carrara in Italy. Overall, RDA staff have tried to build good relations with investors and backed by strong political pressure the LFAs have made a modest impact. However, the results during 1999-2001 were very disappointing with total investment of €53.64mln or €126.7pc - well below the average of €303.9 for all LFAs (Popescu et al. 2003). Furthermore the FDI component was only €2.07mln (3.9%) or €4.9pc and it often involves small investments by people connected with the region who find premises in which low-tech operations can be carried on. Thus a lingerie factory operates with Italian equipment in a former vegetable store in Brad to supply the Italian market, while an empty building at Lunciou de Jos is used to produce furniture from laminated panels imported from Italy and another empty building in Băiţa turns out cosmetics from imported materials. Meanwhile Rusca Montană LFA is the only one nationwide to have attracted no FDI whatsoever.

An LFA based on Ironstone Mining and Heavy Industry: Bocsa

Bocşa LFA is situated at 170m in a depression in the Dognecea Mountains (drained by the Bârzava) which lies 18kms west of Reşiţa on the road and rail route to Timişoara. The area includes the town (population 19,171 in 2001) and the three communes of Dognecea, Lupac and Ocna de Fier, lying to the south with Croat, German, Hungarian and Roma elements in addition to the Romanian majority. Lying

within the Carpathians, close to the contact with the Banat Plain, there is some activity associated with the meadows and oakwoods of the Dognecea Mountains, but of much greater significance for the development of the region as part of the Reșița metallurgical complex by virtue of the mineral endowment arising from small areas of basalt (within what is predominantly granite and limestone country) containing iron ore. The minerals were appreciated when the Habsburgs wrested control of Banat from the Ottomans in 1699 and started a mercantilist enterprise in their new border territory. A phase of expansion began with the arrival of mining families from Bohemia in 1718 to establish the new settlement of Bocșa Montană as a community of woodcutters and charcoal burners beside the older community of Bocsa Romana. This provided the basis for the smelting and forging complex built by Baron von Rebentisch (known as the 'Altwerk') which was superseded after the floods of 1722 by the 'Neuwerk' - a name that gave rise to the present Naiverc quarter of the town (Figure 3). Activity continued after a brief setback of renewed Habsburg-Ottoman hostility (1737-9) and although new capacity was installed further up the valley at Reșița in 1771, Bocșa continued to act as an independent centre of iron production. The community became quite diverse ethnically for in addition to the local Romanians and the German and Hungarian colonists there were Romanians from Sasca who came to take up forest work ('Săscani') and Roma associated with the Sf.Ilie monastery who settled in the Godinova and Măgura districts (Figure 15.4)

In 1873 the narrow gauge industrial railway from Reșița to Bocșa and Ocna de Fier was completed and the following year the standard gauge public railway from Timișoara arrived. This was the basis for the expansion of the industrial complex as a whole through steel making and engineering, with concentration of iron and steel making at Reșița and closure (probably in the 1880s) of blast furnaces built at Bocșa and Dognecea during 1858-61. But mining continued at Dognecea and Ocna de Fier, while the production of agricultural machinery began at Bocsa Română in 1904 and other installations included a sulphuric acid factory and the Colțan limekilns. By this time the whole complex has been privatised through purchase by the Austrian company 'Staatseisenbahngesellschaft' (STEG) in 1854, reconstituted as 'Uzinele și Domeniile din Reșița' (UDR) when the Banat Carpathians passed to Romania after the First World War (Graf 1997). There was further expansion under communism when the agricultural machinery works grew into the large fabrication complex (CMB) in the district known as MFA ('Ministerul Forțelor Armate') arising out of a military firing range which was eventually absorbed by the expanding complex and its adjacent housing. The result is an extremely linear settlement involving a fusion of Bocșa Română and Bocșa Montană with Vasiova at the point of contact where the main railway station and most of the services (including the town hall) are situated. The 'Altwerk' was located in Bocșa Română while the 'Neuwerk' was placed in Vasiova before the late 19th century furnace was placed still further upstream on the edge of Bocșa Montana where a head of water - to drive the bellows - was obtained by building a leat of about one kilometer in length along the Bârzava from a weir at Pregel. Although closed some time after the Ocna de Fier-Reșița industrial railway was built - in favour of a consolidated iron and steel industry in Reșița already noted -

the tower used to hoist raw materials to the top of the furnace (and subsequently used as a small hydropower station that exploited the dam and waterfall - 'stăvilă' - until the 1960s) remains in situ. And it merits conservation, especially since it stands in a pleasant wooded environment known to the locals as the railway park since Bocșa Montană station lies adjacent. In Bocșa Română heavy industry has been perpetuated through CMB while the Neuwerk area was reactivated under communism as a depot for the handling of iron ore brought by funicular from Ocna de Fier nearby (replacing the industrial railway). A large sawmilling complex developed in the 1960s at Vasiova station (with further capacity in Bocșa Montană) but light industry remained limited.

Deindustrialisation has greatly reduced employment at the old SOEs. With origins as an agricultural machinery factory (enlarged under communism), CMB really took off when most of Resita's bridge-building section was relocated in 1950, followed by a tower crane section in the 1970s (when CMB became Romania's biggest producer of both building cranes and river bridges, as well as a producer of swing bridges and various welded structures for the mining industry and for thermal and nuclear power stations). Employment eventually reached 5,000 (30% German and Hungarian), but a quarter of the workforce travelled up to 20kms six days per week from villages - such as Biniș, Berzovia, Doclin, Fizeș, Gherteniș, Ramna and Vermeș - with bus services available for all three shifts; while 1,000 young Moldavians and Oltenians lived in the 'Căminele Tineretului': two poorly-built four-storey apartment blocks adjacent to the factory. The enterprise worked on contracts for the Cernavodă nuclear power plant and exports for China and the USSR as well as Austria, Canada and Japan. Problems mounted after 1989 despite quality certification in welding and collaboration with a range of foreign companies such as Ansaldo, Chyoda-Mara, Krupp, MAN Babcock and Mitsubishi, although the situation was not helped by a large debt of \$3.35mln arising from goods supplied to an iron ore plant in Krivoi Rog (Ukraine) in 1989-90. Political leadership continued - involving the centre-left Party of Social Democracy and its predecessors during 1990-1998 and again since 2001, with influence from the centre-right National Liberal Party during 1998-2001, but without significant differences in management style. Some sections were closed completely and sold as scrap, but there has been some retooling - e.g. a Messer machine was installed in 1998 for electronically-controlled cutting of sheet iron - and links have been renewed with Cernavodă while industrial halls have been built (e.g. for European Drinks at Rieni and Mitsubisha) and there is some fabrication for hotels. There was a sharp reduction in the workforce from 1,408 to 600 during 2001 (leaving 250 in bridge building, 110 in material preparation, 57 in scaffolding and 43 in painting - plus 120 in management), but on the whole the decline in employment has been gradual with the pressure of small wage increases (below the rate of inflation) to encourage employees to leave voluntarily or take early retirement. This has avoided major unrest, notwithstanding some tension over high managerial wages and discrimination over redundancy and recall on the grounds of family rather than performance. While older workers are generally happy with deals that secure pensions and the young are prepared to take up commerce, middle-aged workers are anxious because they are too young to retire but lack the energy to work abroad or in cross-border trade. The

German-Hungarian element is now less than a tenth, but there is still a strong commuting element (84 people travel from Berzovia, Biniş, Ocna de Fier and Ramna) involving families with two to three members still working at the factory on the basis of their performance and/or relations with management. CMB was privatised in September 2002 with sale to a former manager who hopes to rejuvenate the enterprise - but with even fewer workers. This has already produced positive results in terms of working conditions and the local environment. An industrial park would now be a logical development.

The iron ore company 'Miniera' closed completely in 1998 with 150 redundancies. The poor quality iron ore at Ocna de Fier ceased to be profitable after 1989 and activity declined soon after the revolution when the Reşiţa furnaces were closed and the funicular from the mine in Ocna de Fier to the processing plant in Bocşa Română was abandoned: from 1994 only poor quality residual ore was handled. Meanwhile, the 'Avicola' poultry complex was built in the 1950s to provide eggs and chicken for local consumers and the others in the northwestern part of Caraş-Severin; employing people from Biniş, Dulău and Valeapai who left the collective farms for a commuting way of life before building their own houses in the northern part of Bocşa Montană or buying property there cheaply in the 1980s. From 800 in 1990 the workforce declined to 200 in 2002, after several waves of redundancy, although there are still some commuters from Berzovia, Biniş and Ramna - the nearest villages to the factory on the western side. The enterprise was privatised in 2000 in favour of the manager of the former communist enterprise (Comtim) and - with a new slaughter house - the enterprise has gained a unique reputation for quality, especially in Arad, Lugoj and Timişoara (although an air pollution problem remains unresolved). The new chicken rearing enterprise employs 40 of the former SOE workers, while others have found work at a new meat processing enterprise which has opened with LFA fiscal advantages, although it may now face a difficult future since most concessions were withdrawn in 2003.

Restructuring of wood processing has generated some FDI through the Egyptian-owned 'Stejar Forest' (also known as 'Tomoioaga') producing sawn timber, with steam drying. The original 'Firiz' mill (the name still used locally for the main surviving unit) was built to exploit the oak-birchwoods of the Bocşa Hills and at its maximum 1,200 were employed in the town (mainly Vasiova) and surrounding villages: Berzovia, Moniom, Ocna de Fier, Ramna and Vermeş; with sawdust pollution a significant problem. After 1989 the complex was privatised in sections. Sawmilling was privatised as 'WestForest Bocşa' in favour of a large Caransebeş-based parchet enterprise interested in the export of steamed beech timbers from Bocşa to Africa (as the result of a contract with the trading company 'Romanel' owned by the family of former prime minister Petre Roman). Even so, in order to survive through the 1990s the managers had to sell much of the machinery and progressively lay-off workers (with some retirements) until 1996. However in 2002 part of the West Forest complex was acquired by 'Sand H Trust Construction' - an Egyptian company producing steamed beech timbers and small boxes for fruit-packing in Greece. Later in the year almost 100 employees were laid off, reducing the workforce to 70. The

new company has scrapped more machinery without any modernisation but wages are linked with productivity (and overtime is available) and the old habits of drinking in work-time have been eliminated. Meanwhile the furniture section was acquired as 'Mobila Bocşa' in 1994 and now operates from a site in Bocşa Română while the parchet section operates as 'Parchet Bocşa' within the otherwise-derelict West Forest complex in Vasiova. The business is owned by a Roma citizen of Bocşa who spent time in Germany and now employs other members of the local Roma community. About 30 people are employed in the two sections.

Whereas there were some 6,000 industrial and construction workers in the SOEs in the 1980s, barely 750 remain today. Only about 30 persons (from 12 families in Bocşa Montană and Vasiova) commute to the Reşiţa engineering and metallurgical complexes compared with 120 under communism. New jobs have been created - partly as a result of the LFA - but the results have been modest. Some 235 jobs have been provided in wood processing, joinery and parchet; 65 in restaurants, bars and tourist services; 43 in tailoring; 32 in oil distribution and filling stations; 22 in five separate bakeries; 13 at Caritas and 10 in engineering: a total of 420 (not all of which are official, because some workers are taken on by small Romanian - and even foreign - enterprises without proper documentation ('carte de muncă') and are paid very low wages in order to boost profits. Small foreign investments use surplus space at CMB: an Italian clothing firm and a French firm making car parts. There are also some Romanian investors who have returned home after making money abroad - hence the references in the town to 'belgianul', 'italianul' or 'neamţul' (German). One 'francezul' was actually elected mayor in 2000 but had to resign two years later when a new law denied office to persons holding dual citizenship - though he was already a disappointment after his failure to achieve the anticipated surge in business under an entrepreneurial 'primar'! Other Romanian investments include two within CMB: the Mazzolin (Timişoara) printing works and the workshop of an individual entrepreneur (Florentin Cârpanu) who makes aluminium and wood panels. Elsewhere, printing ink cartridges are produced (based on Italian technology) and a jewellery workshop operates in a converted apartment. Several small joinery firms have developed: Pohanca (on the Biniş road), Holz-HUB, started in 1994 by the German Kurt Bluml (near Ramna) and Bogdan (on the Ezeriş road); also small furniture factories by the Drugă and Meniuc families; family associations concerned with domestic gas heating systems; and an enterprise working in iron products. All are profitable SMEs with fewer than 50 employees, including many redundant 'Firiz' workers who have doubled their wages by switching from eight to 10-12 hour days. It should also be noted that since LFA status allows foreign purchases to be imported customs-free, second-hand cars can be imported and sold very profitably. Small businesses (up to ten employees) connected with motor vehicles is another domain largely in the hands of Germans or Romanians with work experience in Germany or Italy. Altogether the number of salaries in the LFA as a whole have fallen from 11,158 in 1986 (38.0% of the population of 29,394) to 3,833 in 2000 (15.3% of the population of 25,006). Meanwhile jobs in industry has fallen from 7,746 in 1986 (69.4% of all employment) to just 2,068 in 2000 (54.0%).

As a result of restructuring poverty has become a significant problem affecting around 40% of the population since unemployment and MIS benefits are low (and the former is available only for a limited period), while monthly pensions will only secure food purchases for two weeks (unless a simple bread and milk diet is adopted) quite apart from housing and heating costs. Young and middle-aged workers facing redundancy from the SOEs have often taken up cross-border trade while a few lost money (and sometimes their houses) in the Caritas pyramid investment scandal of 1991-3. There were also opportunities during the UN embargo against Yugoslavia - when petrol was smuggled across the Danube at night in the Moldova Veche area to help maintain the Pancevo petrochemical complex (which operated throughout the period of sanctions, though mainly – it is assumed - through illegal transfers through the pipeline from Timisoara's 'Solventul' enterprise. Some Bocşa people fitted larger petrol tanks to their cars and drove into Yugoslavia three or four times a week during 1993-4. By bribing the customs officials at Jimbolia or Stamura Moraviţa, a selling price in Serbia six to eight times the Romanian pump price of DM0.5/l could generate enough income to build a new house. The end of sanctions led to new forms of commerce such as the purchase of clothing and leather goods in Hungary for sale in Reşiţa, or the sale of Romanian nuts and household tools in Yugoslavia. Work abroad was obtained with travel documents by stowing away in lorries or the roof of a railway carriage in order to reach Germany and Italy but especially Spain where \$1,000 per month could be earned on the black market ('la negru') - in competition with Albanians and Bosnians - by picking fruit or harvesting maize. The first people to get to Spain would then help others to follow. Each year some 50 people from Bocşa (almost all women) are now hired unofficially to work in Germany on asparagus or strawberries for just two Euros per hour compared with the four that would be expected by Poles, six by the Portuguese and seven by Germans. They are organised by reputable German firms and travel in special coaches (with proper documentation) and return with electrical goods. Meanwhile the people who used to commute from the villages tend to work only in subsistence farming. Indeed some Bocşa people have moved into the rural areas; buying houses cheaply in depopulated villages like Bărbosu (which has no permanent population but only families from Bocşa who make visits in spring and autumn to do the essential farm work) or Dulău where extensive cherry and plum orchards could generate some business.

Religious organisations - particularly Baptists and the Pentecostals - help the poor by running shops selling second-hand clothes and time-expired medicines and maintaining kindergarten and primary school facilities (they also assisted people to emigrate during the early transition years). Their petty commerce is tolerated through personal contacts with local officials established under communism (a benign influence previously demonstrated through permission to build the Baptist Church in Vasiova pre-1989 (as well as the second church opened in Bocşa Română in 2001). Much aid was provided during 1989-1992 through Caritas (not to be confused with the pyramid investment scandal of the same name) with which the German Forum ('Forumul Germanilor din România') was connected, along with the Baptist and Catholic churches (which accordingly gained new members at the time). Indeed,

under the organisation of the Catholic priest, 13 jobs have been created in management and distribution. But while food, clothing and equipment (including bicycles) was given away to poor Catholics and the Măgura Roma, much was sold through commerce organised by the Catholic priest. However, there is continuing support through Caritas involving food, clothing and toys from The Netherlands for handicapped children (formerly accommodated at Sf Ilie monastery and since 1994 at a local gymnasium school), while the organisation - often through family connections - also supplies clothing and medicines from Germany (especially Karlsruhe), The Netherlands and USA to maintain the services provided by the Baptist or Evangelist Churches. Meanwhile Roma people from the Bocşa Izvor / Godinova suburb (near the monastery) sell firewood (usually stolen) and the business continues despite the availability of gas heating since 2000 because the high fuel price has forced the poorer people to retain their wood-burning stoves. Local Roma women also sell pumpkin or sunflower seeds and cheap toys while men make brandy stills, golden ear-rings and work as musicians. The Roma also get money abroad by selling flowers but more normally by begging (initially in France but later in Finland and the UK) on the grounds that funds are desperately needed for fictitious community projects. Those Roma citizens who are repatriated by the French authorities for theft or other criminal acts are denied passports and remain on police and customs authority lists as undesirables, but this has not prevented the proceeds of begging from financing new villas for some Roma families on the main road or even the town centre. Social integration remains a problem for the Godinova Roma who retain their language, but less so in the case of the Măgureni Roma - living in Bocşa Montana in the vicinity of the Ezeriş road - who came with the 'Bufeni' or 'Sascani' Romanians and speak only Romanian: like the Roma community in Vasiova who moved from Dognecea in the communist period, they have received help from Caritas and the Catholic Church - as well as social assistance from the townhall following redundancies from CMB. The remaining Germans are helped by relatives abroad - also through the German Forum which provides money for 'Vershank' in February, the Wine Festival and 'Oktoberfest'.

How can the area be made more attractive? Housing is good in the sense that about 70% of the stock consists of brick buildings - while 20% use stone and other substantial materials compared with only 10% for wood. Most houses have two or three rooms and are roofed with tiles. 55% have gas heating while all have had electricity since the 1970s, but it is only the better-off one third of households which have running water, while waste water treatment is unsatisfactory to the extent that animal sewage may flow along gutters and constitute a pollution hazard. People working abroad are able to extend their houses, perhaps through additional storeys, while those with pensions or local salaries cannot afford improvements and struggle to secure modest bank savings. Flats are quite cheap (about \$2,000 for two rooms) but none are under construction since only a few young families still lack their own apartments and are therefore living with parents or grandparents. It is a pity that people living adjacent to CMB are poor and unemployed and cannot afford to buy the flats which therefore go to people from other regions e.g. Moldavia. Meanwhile, services are substantial and changes since 1989 show a balance of positive and

negative trends. The telephone network has been enlarged and waste water treatment has improved, while gas is available for domestic use. There has been some restructuring of secondary education, while the local hospital survives along with a clinic and pharmacies. Retailing has improved, through a number of small, local shops and there is increased provision of banks and insurance houses (often linked with offices in Reșița). Several small hotels, restaurants and guest houses survive along with facilities for music and dance and adult education. On the ethnic side, the German Forum still organises activities, but the emigration of much of the German community had accelerated the demise of the culture house in Bocșa Română which has also seen the privatisation of the '1 Mai' recreation ground and the closure of the children's playground. The crisis at CMB caused the closure of the Workers' House ('Casa Muncitorească') in 1990 as well as the football stadium ('Bocșa Izvor') in the Pregel area (named after the former German owner of the park). Deterioration can also be seen in the destruction of the campsite through theft of the wooden cabins for firewood in an area with good air and attractive woodland that was recognised as a climatic station in 1931 with a strand and facilities for boating on the Bârzava. Pollution remains an issue with 17 sources of air pollution, 32 for water pollution and 30 for soil pollution.

The town certainly has possibilities to enhance its attractiveness through local recreational amenities in view of the good quality of the woodlands which cover the surrounding hills and provide a base for agrotourism. The reinvigoration of tourism may be seen in the restructuring and modernising of Stejaru Inn after purchase in 1998, while the Pregel area of Bocșa shows some signs of revival through a small foreign investment in the Hotel Izvor, privatised in 1992 in favour of a local man returning from Germany with resources to establish a small private establishment, rebuilt after a major fire caused by lightning. Moreover on the northern side of valley opposite Vasiova, the small Izvor lake - in wooded surroundings beside an empty swimming pool and abandoned pleasure ground - shows signs of revival through a local boarding house and a new business to operate rowing boats on the lake. The Sf.Ilie monastery (1905) - restored to the Orthodox Church in 1990 after being requisitioned by the state in 1959 for use as a children's home - attracts Orthodox Romanians and Catholics from Carașova for the 'hram' festivities in July. The monastery introduced textile workshops in the 1930s and also houses an important collection of religious books which can now be appreciated. The town's 14 different religious cults generate visitor interest through festivals and churches: Bocșa has one of the oldest Roman Catholic churches in România while Orthodox churches in the area were built in 1755, 1808 and 1815; the most notable is that of Sf.Nicolae, built 1795, painted in 1810 and restored in 1938. Archaeological sites include the prehistoric jewellery found in the Aron valley, Coțofeni vestiges at Colțan (where the quarry closed 1990) and the ruins of the fortified settlement of Dealul or Gruniul Cetății: attributed to the Turks in 1658 (hence the name Buza Turcului) but also claimed by the Hungarians as their 14th century project. Vasiova's famous peasant poet - Tata Oancea - who launched the first local literary journal 'Vasiova' is remembered through a memorial house in Strada Horea, the public library named after him as well

as a poetry festival which began in 1976. Since 1977 Bocşa has also organised a national 'Aurelia Fătu Răduţu' festival following the death of a renowned folk singer, with the possibility of establishing a museum in the house in Vasiova where she was born. Since 1984 the Culture House ('Casa de Cultură Orăşănească Bocşa') has used its own funds to organise international camps - usually in Ocna de Fier - for painting and sculpture.

Reference should also be made to the problems of three declining rural communes included in the LFA, especially Dognecea and Ocna de Fier where 90% of professionally active men and 30% of active women used to work in mining. The young have departed for Timişoara (though the remnants of the Roma community remain) and there is a female majority (some women work in shops and bars in Reşiţa) but no solutions have been found for the older people of working age. Lupac has lost its coal mining (apart from one small pit) and there is a slow migration by the Caraşoveni minority back to agricultural villages where there is a better basis for subsistence and where most of the men work nine months of the year - i.e. excepting the winter months - mainly in the Zagreb area of Croatia rebuilding houses damaged in the homeland war. As Caraşoveni or Croats (depending on their declaration in 1992) they have Croatian passports and double citizenship: a substantial advantage when Croats gained visa-free access to the Schengen zone ahead of Romanians. They live comfortably at home but they receive lower wages than Croats and while they evade taxation through their black market work they have no claims to social security either. The villages have electricity and fixed telephones - and a few bars and shops selling food and second-hand clothing - but Dognecea and Ocna de Fier need proper water and sewage systems and all need piped gas. There could be a basis for tourism in the culture of the Caraşoveni, with Lupac claiming 16th century origins as a Caraşoveni settlement sponsored by Hungarian kings to defend the western front of Semenic. Coming from Montenegro, Macedonia, Albania, Bulgaria, Croatia, Macedonia and Montenegro, these people (who consider themselves Croats because of their Catholic faith) continue to demonstrate their rich cultural heritage. The biodiversity provides potential through the forest reservation at Dognecea and the opportunities for hunting (hares, pheasants, wild ducks and pigs) in the Areniş and Dognecea Mountains and Bocşa Hills.

There are tremendous opportunities over industrial archaeology which has been discussed across Caraş-Severin as a whole in several publications (Graf 2000a; Hillinger et al. 2001), including one which commends the promotion of 'Calea Fierului din Banat' (Olaru 2000). While there are some opportunities in Bocşa, most arise in Dognecea and Ocna de Fier where several lakes (Danila, Lacul Mare, Nuferi and Vârtoape) and quarries (Arhanghel, Iuliana, Paulus, Stros and Terezia) are among the areas protected. In Dognecea the legacy covers both 18th century non-ferrous working (1722) and 19th iron smelting. Meanwhile, Moraviţa - usually known as Ocna de Fier, or Piatra de Fier on the basis of the German and Bohemian names of Aisenstein and Steinechka respectively (referring to the rocky landscape) - has a history of copper and gold smelting in the old part of the village near Paulus and Terezia quarries; along with iron ore, limestone and marble working which continued

until recently (Graf 2000b). A tourist project advocated for the Dognecea-Ocna de Fier area (inspired by experience at the Wieliecka salt mine near Krakow) would make use of six lakes (including two at Dognecea refurbished in the 1980s) - created in connection with the washing and sorting of ore - and an underground transport passage between Dognecea and the former narrow gauge industrial railhead at Ocna de Fier. In Dognecea the local furnace site is available for reclamation because although most of the old buildings are covered by slag, it would be possible to present the ruins of one of the furnaces, closed in the late 19th century in order to concentrate production in Reșița. But for the moment an excellent impression of the geological interest of the area is conveyed through a private museum ('Muzeul de Mineralogie Estetică Constantin Gruescu') which lies adjacent to Paulus Mine and comprises a remarkable collection of beautiful rocks collected from the local mines.

There is no doubt that LFA status for the Bocsa area is absolutely justified. The official unemployment rate in 2002 was 55% while the real rate (allowing for people who have not registered) is thought to be 67% since the official figure of 3,211 people officially unemployed compares with 5,126 jobs known to have been lost at CMB and Firiz alone, without taking account of Avicola and Miniera (the discrepancy may arise in part from the loss of some records in the Labour Office during 1990-4). Clearly more entrepreneurs are needed; for it is unfortunate that CBC through the DCMTER seems to bring most benefit to large towns with 'municipality' status where NGOs tend to thrive most conspicuously. Efforts are being made by Bocșa's cultural 'câmin' to improve IT skills as well as traditional crafts like tailoring and shoe-making, while the townhall has been involved in some professional conversion courses. There is opportunity in the mineral water (already bottled at Calina near Dognecea), while ornamental rocks could support some local economic diversification - not to mention 250mln.cu.m of reserves of marble at Dognecea and Ocna de Fier. However, pressure is relieved by a slow decline in population, and because most of the unemployed work abroad earning more than would be possible in Bocșa, the poverty rate has moved inversely to the notional unemployment level and it is now estimated at 25% (down from around 40%). It is also helpful that Bocșa is close to the frontier and many families now have relatives abroad.

Less Favoured Coal-Mining Areas: Jiu Valley

The Jiu Valley in the southern part of Hunedoara County is a major problem area. It is Romania's most important pitcoal producer. The 50km basin is fragmented by faults into 18 mining fields with thick coal seams - many of them vertical - of 6,000-8,000cal/kg (Gruescu 1972). The mines developed from Lonea in the east in 1840 to the central area (Vulcan in 1857 and Petroșani in 1858) and further east in 1890 (Aninoasa) and 1892 (Lupeni) where the coal ceases to be of coking quality. Although 'Westsiebenburgische Montan Verein' invested in the industry from 1858 (and Petrila coal was supplied for coking at Calan furnace in 1863), the arrival of the railway from Simeria in 1867 provided the major breakthrough. Production rose from 2.23mln.t in 1913 to 2.76 in 1943 (after a set-back during the depression when only Lupeni

remained open) to reach 4.19 in 1960; 7.82 in 1970; and 9.40mln.t in 1981, boosted by several new shafts e.g. Bărbăteni, Câmpu lui Neag and Uricani. However, due to growth of lignite fields the share of total Romanian coal production fell from 69.1% in 1938 to 51.3% in 1960 and 28.8% in 1975). Demand increased in the metallurgical industry through the Hunedoara coking plant (1950-5) and the Calan semi-coking works (1956-7), while some coking coal was also sent to Reșița for mixing with the local (higher quality) production. Power generators are also supplied: Vulcan (21.5MW) and Paroșeni (300MW) locally and others further afield where further cooling water is available (e.g. Mintia near Deva: 840MW). But demand has fallen since 1989 and imported coal is cheaper. So the government has been making heavy cut-backs, combined with relatively generous redundancy terms under the mining industry programme of 'disponibilizarea' and attempts to introduce alternative employment. Employment in the mines declined from 53,446 in 1989 to 42,000 in 1997 and 18,200 at the end of 1999 when benefits were fast running out. The national pitcoal company ('Compania Națională a Huilei') has closed several mines since 1997: Câmpu lui Neag, Dalja and Petrila Sud. But there was also modernisation at Valea cu Brazi in 1991 which meant that 70 men then produced the same as 3,000 at Aninoasa and the three mines subsequently closed. A new preparation plant opened at Coroiesti (Vulcan) in 2003 (rationalising the processing of coal previously handled at Livezeni and Uricani as well as Coroiesti) and this unit now complements the facility at Petrila for the eastern part of the coalfield. While modernisation is a mixed blessing in terms of jobs, it cannot seriously be resisted whenever finance is available: not least because the dangerous condition of the mines was blamed for tragic accidents at Vulcan in 2001 and 2002. There has also been a decline in the related machinery businesses e.g. at Umirom, Upsruem and Upsprom from over 3,000 to just 1,000; at Gerom International and Electrouil (now 125 jobs); and the construction companies Consmin and Conpet (reduced to 628 jobs). As already noted, the run-down of the industry was deeply resented by a workforce privileged under communism. Exhaustion of severance money has increased poverty levels and is a factor in the increase in crime. In 1997 Hunedoara County sought special legislation to encourage private enterprise through fiscal incentives - leading to LFA programme with Valea Jiului among the first three areas to be declared in 1998.

Diversification has been an extremely slow process. When the miners challenged the communist leader N.Ceaușescu in 1977 with demands for six hour shifts, early retirement, improved equipment, better living conditions (housing and amenities - like hot water - and food) they also sought better work opportunities for women (going beyond the 'Viscoza' artificial fibre plant built before communism). And although there was some repression by the authorities for the workers' demonstration - while coal production was boosted by use of the army and the arrival of a poorly-motivated workforce recruited from other part of the country - the Vulcan clothing factory (1979) was followed by a furniture factory at Petrila (1982). Since the revolution, the deep crisis in the region has meant that "a concerted effort in jobs and job retraining, health care, infrastructure, is absolutely critical" (Kideckel et al. 2000 p.154). Despite the LFA in 1998, the miners have continued to vent their anger with a five week

general strike, re-enactment of the famous 1929 Lupeni strike on its 70th anniversary (partly by miners whose severance pay was quickly evaporating through purchase of household durables and luxury goods) and attempted marches on Bucharest already referred to. Some success in diversification has arisen from the Lupeni cigarette factory of 1998: a DM7.0mln project by Bulgar Tabac/Romned International, using Romanian capital and Dutch/Italian technology. 200 locals (plus 70 key employees from the Târgu Jiu cigarette factory) are employed in a modernised two-storey building packing cigarettes imported from Bulgaria, though the firm intends to invest in a tobacco plantation in Gorj which lies immediately to the south. A storage battery enterprise ('Acumulatorul') is linked with mining industry while an industrial joinery complex uses imported Italian PVC. EU assistance in 1999 focused on SMEs with total funding of €850,000 to provide grants of up to 75% of the total cost for approved schemes in both the Jiu Valley and Gorj (a strip-mining area which has also experienced a major cut-back). 14 projects were selected in the Jiu Valley with funding of up to €20,000 for 'simple' projects and 70,000 for 'complex' projects to create some 200 jobs in all. There was also a follow-up programme of €10mln from PHARE for a Mining Area Reconstruction & Rehabilitation Fund. The Jiu Valley projects covered two Petroșani firms making double glazing units (which need to hold adequate stocks of wood, aluminium and PVC materials); a sawmill at Vulcan which has successfully built up a customer base; a turning and machining workshop in Petrila turning out quality products for export; and other businesses concerned with baking, frozen food, knitwear, printing, electro-mechanical work, waste recycling and land registry services (all in Petroșani); horticulture in Lupeni; and baking and office services in Uricani. The scheme demonstrates capacity but the need to encourage an entrepreneurial spirit. Much more diversification is needed: the town of Vulcan sees opportunity in wood processing; food processing (meat and milk), light industry; glass and ornamental rocks.

Foreign investors have effectively stayed away from the area although in the economic sense it is 'ill' and needs FDI to offer a cure. However the area's reputation for violent action against the authorities (but local and central) is extremely off-putting; not to mention the relatively poor qualifications of a workforce that nevertheless expects salaries comparable with mining (although they are hardly justified by prevailing productivity standards). Also there is no large, relatively prosperous town in close proximity to provide a sense of security: Hunedoara is 60kms to the north and is also a high unemployment area and the more affluent city of Deva is 20kms further on, while to the south Târgu Jiu lies 50kms away through the Jiu defile. Measures have to be taken to improve the area's attractiveness. Recent research has looked into the coping strategies for redundant workers and progress made in retraining and small business creation; highlighting the need for confidence building in the creation of partnerships and the need for small incubators and subsidised credits. A professional training and reconversion centre is operating and a business consulting service is also being provided in Petroșani by a local foundation established in 1997 for the promotion of SMEs and supported by the UNDP and the local business community. The local authority is backing an industrial estate at

Livezeni Colliery which will mean the redevelopment of the old preparation plant. The main road along the Jiu Valley is being upgraded in connection with the projected Calafat-Vidin bridge over the Danube and the related Eurocorridor. Intersecting east-west road links (7A Petrila-Râmnicu Vâlcea and 66A Uricani-Băile Herculane) - which require heavy investment in modernisation and realignment, especially within the Retezat Național Park - will enhance the tourist potential of the area. Local studies highlight the potential on the routes to Valea Tăii and Lake/Cabana Șureanu (actually in the territory of the adjacent town of Cugir) and the Jiu valley route to holiday homes around Cabana Voievodu. But on an altogether bigger scale, Petroșani Council is supporting a comprehensive plan for 'Zona Turistică Valea Jiului' which includes a greatly enlarged skiing resort in the Parâng (PMP 2003) at the present Cabana Rusu/Stația Meteo Complex where the separate units of Maleia and Cabana ANEFS are already linked with skiing grounds at 1,600-1,750m around Releu TV by a 2,232m 'telescaun' (1973) and a 317m 'teleski' (1989) from the former and a 382m 'teleski' from the latter in 1994. Additional skiing areas known as 'Pârția A' and 'Pârția B' were opened up by a 1,280m 'teleski' in 1984. The expansion includes new skiing areas extending from (a) ANEFS to Coama Parângul Mic (1,790-2,060m) with an 853m teleski, Slima (1,620-1,995m) with 1,250m teleski and possibly Gruniu; while Pârția A and Pârția B will be developed by 'Europarâng' with a 440m teleski; and from Maleia there would be extensions at Dragu Petrisor (1,450-1,520) with a 550m teleski, Poiana Mare (1,250-1,500) with an 875m teleski with Saivane a further option. The complex would expand almost four times from its present 12.7ha to 46.0

Petroșani sees the need to promote a positive image for the region. This has been helped by World Bank funds for SMEs and 'ecologizare' which covers both farmland and urban infrastructure while the EU has also financed SMEs and socio-economic development (Alexandrescu 2001). A water scheme started in 1998 helped to improve local infrastructure and also provided temporary employment (e.g. at Petrila during 1999-2000) while dyking of the Jiu river was also undertaken after the 1998-9 floods. But despite some World Bank assistance for roads, housing repairs/community facilities and waste management, much more remains to be done. Petrila has no park or childrens' playground and dust blown from waste tips is a considerable nuisance, although there is a prospect of afforestation being undertaken in connection with the World Bank 'Prototype Carbon Fund' (PCF) - linked with the Kyoto Protocol - which will support over 6,700ha of acacia and poplar plantations on degraded land in a number of lowland counties (Brăila, Dolj, Mehedinți, Olt, Tulcea and Vaslui) (Blujdea et al. 2003) after an experimental model for the Danube Valley based on various poplars showed that trees would reach an industrial diameter in ten years and also provide certain non-timber forest products. The PCF provides a mechanism to "purchase the net carbon sequestered by the newly established plantations" (Abrudan et al. 2003 p.16) - otherwise the work would not be economically viable on land ruined by irrigation and mismanagement. The scheme has relevance to tips in Jiu Valley where eight hectares were planted by the local 'Ocol Silvic' from 1987 (pine and 'cătină') ultimately with World Bank money which made it feasible to provide a soil depth of 20-30cms on the tips. Once the methods have been perfected it is

anticipated that work will be continued by the mining company, with World Bank support for the mines to continue the work themselves.

Less Favoured Coal-Mining Areas: Anina

This study concerns part of the Moldova Nouă LFA, originally delimited to include the Anina and Oravița areas and all the communes of the Almăj Depression and the Danube Defile, extending eastwards to Iablanița and Mehadia. However, in order to concentrate the resources in the areas of greatest need, the area was reduced to two separate districts within this zone: Anina and Oravița with Bozovici, Ciudanovița, Mehadia and Prigor; and Moldova Nouă, with Berzasca, Cărbunari, Coronini, Sasca Montană and Sichevița communes. Oravița, which offers additional fiscal concessions and free professional help, has already diversified through Normarom, a Franco-Romanian enterprise producing garden furniture, and a German enterprise producing furniture based on the local beechwood is a possibility. Meanwhile, with commitment to the area by the EU and Nordrhein-Westfalen, Moldova Nouă wants to develop its port on land previously part of the local copper mine and then establish a 'free port' regime. But the infrastructure is a problem since the road from Orșova through the Danube Defile remains unsurfaced, though it has the potential to provide a new route from Bucharest to Belgrade, with a frontier post at Socol. Moldova also lacks a rail link although the reopening of the route from Iam (near Oravița) to Baziaș and its extension along the Danube could solve this problem and, at the same time (given modernisation of the line to Berzovia in the north) make it easier for the Reșița engineering and metallurgical works to despatch rails and heavy equipment (Hillinger 2000). But the main concern here is with Anina which has a long history as a coal mining area (Feneșan et al. 1991). The town stands at 645-780m and arises out of the settlement by people from Styria at Steierdorf in 1773 in order to produce charcoal for the Oravița copper smelter. The transformation began after 1790 when coal was discovered by a local woodcutter and this proved highly significant in the next century in the context of steam navigation on the Danube.

The Habsburg mining authorities began prospecting on their own account and, from 1845, implemented a programme to retrieve the coalmines already working under concessionaires. They also contemplated an underground tunnel to Lișava from where a surface railway would run the Danube but this plan was changed to an all-surface route looping northwards to Gârliște and completed in 1863. By this time the mining was in the hands of STEG who eventually operated a string of mines from the railhead in the north (Anina and Thinnfeld) to Colonie, Ponor and Uteriș around Steierdorf in the south, with a cluster in the centre around Valea Teresia (including Colovrat, Friedrich, Gustav, Hildegard and Kubeck). STEG also worked blackband ironstone and the three furnaces established at the Anina railhead by 1867 continued to work until 1927 when the local ore was exhausted. Moreover, bituminous schist formed the basis of an oil distillation business which operated until Romanian mineral oil became available in 1882. However Anina continued to operate as the leading coal producer of what became the UDR complex in 1918; supplying both the company's

coke ovens (relocated in Reșița in 1935) and a local 12MW power station. Coal mining was given every support under communism - and new mines were opened at David and Miniș to supply refractory clay (not to mention uranium mining close by at Ciudanovita and Lisava) - although the real costs rose with increasing depth (currently 1,500m) despite rationalisation to the point where coal was wound only at the principal shaft in Anina with standard gauge rail access. Under the programme for rationalisation of mining all the other mines have been closed completely apart from two (Gustav and Colovrat) retained for ventilation of the eastern and western flanks of the coalfield respectively). This followed a decision taken immediately after the revolution to stop work on a vast opencast mining project to exploit bituminous schist as a power station fuel; supplying in the first instance a 990MW station at Crivina, south of Anina (where one 330MW unit was already operating in 1989). With over 2,000 miners receiving redundancy packages the employment at Anina has fallen to 850 and saleable annual production is 0.42mln.t compared with over a million in the communist period. Whereas there were 9,334 jobs in the town in 1986 of which 7,879 were in industry (overwhelmingly in mining) there were just 1,949 in 2000 of which 1,292 were in industry. While industry's share has fallen from 84.1 to 66.3%, the total number of jobs as a percentage of the population has fallen much more sharply from 69.8% to 18.6 – and the population itself is down 21.5% from 13,372 to 10,498.

With mining accounting for just over two-thirds of all employment in the town at the time, the restructuring programme increased unemployment to 35%, exceeding the national rate by 20%. There was little manufacturing apart from a long established screw factory and a sawmill (once part of the STEG/UDR industrial operations). Jobs for women have increased with a bakery and the 'Unisport' shoe factory in the railway station area: the latter employs 100 women - of whom 40 commute by bus from Oravița - and training has achieved high quality production. But the situation remains difficult for men who depend heavily on temporary work on road schemes and other infrastructure projects, though reference should also be made to ecological work at the Ciudanovița and Lișava uranium mines as well as local coal mines, while the vast bituminous schist quarry at Crivina is being reclaimed by a Greek company. With the establishment of the LFA an Italian capitalist expressed interest in a new sawmill producing for export, while an Austrian firm considered a furniture factory and a Maltese entrepreneur thought about a clothing enterprise. However the main success has been Vartex Textil, a Romanian-Italian enterprise involving Bellandi of Florence which produces woollen goods from pieces i.e. a finishing and parcelling operation employing 100 (and possibly doubling) in a former state warehouse adjacent to the railway station. There is a strong export business especially to France. The Italian knitwear firm Ame Damasa has set up in a former restaurant and the Romanian-Swedish company Rom-Impex used premises near the bus station to produce pallets from waste wood and also parchet for which there are orders from Germany. These enterprises have done well although further training is needed to increase motivation and productivity.

The attractiveness of Anina is compromised by a degree of isolation which can be eased through road improvements currently being undertaken. The local environment has been badly scarred by mining; a legacy which is now being addressed. The town has been well endowed with local resorts in the surrounding hills where clean air and

high landscape quality. But on the western side Sommerfrische has been degraded and partly demolished in connection with the bituminous schist quarry, while Brădet once favoured as a place of convalescence was taken over by the army during the Yugoslav crisis of the early 1950s and the new apartment accommodation was subsequently occupied by the immigrant population needed to boost the workforce in local mines. The facilities on the eastern side at Maial and Mărghitaş have not been compromised in the same way but both need refurbishment and this was noted at the latter in 2003 in a largely unspoilt area in the wooded Buhui valley with extensive meadows on the higher ground. A local building company ('Alutus') is working on a hotel which will supplement the existing chalets and camp site and should be suitable for all-year use in view of the winter sport potential. Diversification should also provide a role for agrotourism based on the scenery of the mountains and the Danube defile, with particular interest attaching to the national parks and protected areas including many natural monuments (Deliman 1998; Drugărin 2003). The Anina Mountains (reaching 1,160m at Vf.Leordiş) display karstic forms and an interesting vegetation which includes Mediterranean species. But there is also scope for hunting and cultural/religious interests (through churches, monasteries and festivals) especially in the context of a traditional ethnic diversity. The industrial history is greatly undervalued. The Anina railway could certainly be developed as a major tourist asset with interpretation to cover the phases of construction, the use of horse and locomotive traction, the historic stations at Oraviţa (1849) - the oldest in Romania - Anina (1864) and the locomotive depot at Oraviţa (1898) along with vintage equipment retained at wayside stations. Industrial archaeology also offers substantial opportunity through the mining legacies in Anina, although several former mines have been completely dismantled in recent years. Oraviţa also offers the oldest theatre in the whole of SEE: designed by Viennese architect Johann Neumann and built between 1789 and 1817 in a town that was once the centre of Caraş County (Radu 2000).

Conclusion

Thus review has deliberately concentrated on the more challenging locations which have been examined against the background of the more dynamic centres which have attracted a disproportionate share of FDI (in the context of the modest share which România as a whole has attracted). To what extent can the problem regions overcome their disadvantages? Romania's official LFAs have enjoyed substantial concessions for several years and it is appropriate that different aspects of disadvantage should be researched as thoroughly as possible: not all problems can be addressed by fiscal concessions but a comprehensive database will help to ensure that priorities are established on a rational and equitable basis. FDI in the LFAs has been very restrained with hardly any large investments of over \$1.0mln. Interviews with foreign investors in Timișoara point to an acute sensitivity over circumstances that could compromise the chances of securing a profit on capital invested. Timișoara is appreciated for its well-qualified and committed workforce (accepting wages that are only marginally higher than in the remaining SOEs), the ease of supply of raw materials (such as leather from local livestock farms to support high-tech footwear factories) and direct

flights to many European cities, especially in Italy (a major concern for a 5,000-strong Italian community in the city). By contrast, LFA workforces are perceived as being relatively unproductive and strike-prone through unacceptable work practices once endemic in the SOE sector and particularly in mining through the high status and relatively good wages enjoyed under communism - with the Jiu Valley an extreme case. At the very least this makes for higher training costs and an element of risk that most entrepreneurs are unwilling to take except where family ties exist and premises are readily available at low cost (although this points to the potential benefit of more industrial parks in LFAs). Thus FDI cannot be expected to take an enlightened attitude and spread evenly across each national territory. There are far greater incentives to cluster in places where links between foreign businesses and businessmen can be fostered. And with so many virtual 'no go' areas for FDI the realistic approach may well be to concentrate on the development of indigenous enterprise through new SMEs in the IRAs, with the now-fading LFA programme providing a rescue for areas suddenly hit by extremely high unemployment. But it will always be down to communities themselves to frame their own solutions by expanding development-oriented NGO networks to intensify promotion of economic potential and enhance skill and competence levels.

ENDNOTE 1

The chapter draws together several strands of research including the work by Liliana Guran-Nica on foreign investment and social risk and by Dan Platon on regional development and industrial parks. The main section on the West Region LFAs was based on the UK author's collaboration with Remus Cretan under West University contract 0012634.

REFERENCES

- Abrudan, I.V., Blujdea, V., Brown, S. et al. (2003), 'Prototype Carbon Fund: Afforestation of Degraded Land in Romania', *Revista Pădurilor* 118(1), 5-17.
- Alexandrescu, V. (2001), 'Depresiunea Petroșani: considerații economico-sociale în perioada de tranziție', *Terra* 31, 70-3.
- Amin, A. and Tomaney, J. (1995), 'The Regional Development Potential of Inward Investment in the Less Favoured Regions of the European Community', in A.Amin and J.Tomaney (eds), *Behind the Myth of European Union: Prospects for Cohesion*, Routledge, London, 201-20.
- Blujdea, V., Abrudan, I.V. and Pahontu, C. (2003), 'Scenariul de acumulare a stocului de carbon în cadrul unui proiect de împădurire a terenurilor degradate în România', *Revista Padurilor* 118(2), 1-4.
- Borcoș, A. and Virdol, A. (2002), 'Aspecte metodologice privind ierarhizarea zonelor miniere defavorizate din România', *Revista Geografică* 8, 178-83.
- Bordânc, F. and Nancu, D. (1999), 'Implicarea cercetării geografice în fundamentarea politicilor sectoriale de dezvoltare rurală', *Revista Geografică* 6, 34-40.

- Buza, M., Dimen, M., Pop, G. and Turnock, D. (2001), 'Environmental Protection in the Apuseni Mountains', *GeoJournal* 55, 631-53.
- Caraiani, G. and Cazacu, C. (1995), *Zonele libere* Editura Economică, Bucharest.
- Chiribuca, D., Comşa, M. and Rotariu, T. (2000), *The Impact of Economic Restructuring in Monoindustrial Areas*, SOCO Project Paper 87, Vienna.
- Ciuhandu, G. (2000), *Concept strategic de dezvoltare economică și sociala a zonei Timișoara*, Editura Brumar, Timișoara.
- Coifan, V. (ed) (1999), *Strategia de dezvoltare economică a județului Timiș*, Editura Orizonturi Universitare, Timișoara.
- Drogeanu, P-A. (2000), *Reforma si lucrarilor publice in Romania ultimilor ani 1997-2000*, Editura Universalia/MLPAT, Bucharest.
- Drugarin, C. (2003), 'Tourist Potential of the Anina Mountains': in R.Cretan (ed.), *Fifth Edition of the Regional Conference of Geography: Geographical Researches on the Carpathian- Danubian Space: Reconsideration of the Geographical Approaches in the Context of Globalisation*, Editura Mirton, Timisoara, 637-47.
- Fenesan, C., Graf, R, Zaberca, V.M. and Popa I. (1991), *Din istoria carbunelui: Anina 200*, Muzeul de Istorie al Judetului Caras-Severin, Resita.
- Fenn, J.M. and Keil, T.J. (1994), 'Ingrijorarea fata de cresterea fenomenului criminalitatii in Romania post-revolutionara 1990-1992', *Revista de Cercetari Sociale* 1(4), 51-71.
- Graf, R. (1997), *Domeniul banatean al StEG 1855-1920*, Editura Banatica, Resita.
- Graf, R. (2000a), 'Judetul Caras-Severin: o regiune industrială veche cu un potential industrial- cultural si turistic care asteapta sa fie valorificat', in H.Bonninghausen et al., *Calea fierului din Banat: un proiect de dezvoltarea regionala pe baza turismului industrial*, Editura Graf/Friedrich Ebert Stiftung, Resita, 149-61.
- Graf, R. (2000b), 'Dognecea: un posibil punct de atractie turistica in Banatul montan', in E.Sabiell (ed), *Turism integrat: Banat si Maramures*, Editura InterGraf, Resita, 105-12.
- Grigoras, V. (2001), 'Strategii de mobilitate in Sa**ncrai-Hunedoara', *Sociologie Romaneasca* 3, 232-9.
- Groza, O. (1994), 'Pascani: ville industrielle de Roumanie: annees de transition', *L'Espace Geographique* 23, 329-41.
- Gruescu, I.S. (1972), *Gruparea industrială Hunedoara-Valea Jiului: studiu de geografie economica*, Editura Academiei RSR, Bucharest.
- Guran-Nica, L. (1997), 'Zonele economice libere ale Dunarii: favorabilitati si perspective', *Geographica Timisiensis* 6, 89-103,
- Guran-Nica. L. (2002), *Investitii straine directe: dezvoltarea sistemului de asezari din Romania*, Editura Tehnica, Bucharest.
- Guran-Nica, L. and Turnock, D. (2000), 'A preliminary assessment of social risk in Romania', *GeoJournal* 50, 139-50.
- Guvernul Romaniei 1997, *Carta verde: politica de dezvoltare regionala in Romania*, Guvernul României si Comisia Europeană, Bucharest.
- Hillinger, N. (2000), 'Cateva consideratii asupra zonelor defavorizate in judetul Caras-Severin', *Geographica Timisiensis* 8-9, 281-6.

Hillinger, N., Olaru, M. and Turnock, D. (2001), 'The role of industrial archaeology in conservation: the Resita area of the Romanian Carpathians', *GeoJournal* 55, 607-30.

Hillinger, N. and Turnock, D. (2000), 'The Resita industrial complex: restructuring and diversification in the post-communist period', in D.Light and D.Phinnemore (eds), *Post-communist Romania: geographical perspectives* Post-communist Romania: geographical perspectives, Liverpool Hope Press, Liverpool, 7-27.

Ianos, I. (2000), 'Less-favoured areas and regional development in Romania', in G.Horvath (ed), *Regions and cities in the global world*, Centre for Regional Studies, Pecs, 176-91.

Ianos, I. (2001), 'Ariile profund dezavantajate din Romania: consideratii preliminare', *Terra* 31, 30-8.

Ianos, I., Popescu, C. and Talanga, C. (1996), 'Repartitia geografica a unor grupuri sociale marginale in Romania', *Studii si Cercetari de Geografie* 43, 13-22.

Kideckel, D.A., Botea, B.E, Nahorniac, R. and Soflan, V. (2000), 'A new "cult of labor" stress and crisis among Romanian workers', *Sociologie Romaneasca* 2(1), 142-61.

Marga, A. (1993), 'Cultural and Political Trends in Romania before and after 1989', *East European Politics and Societies* 7, 14-32.

Ministerul Dezvoltarii si Prognozei 2003, *Programul PHARE 2001: coeziune economica si sociala - asistenta pentru IMM - ghidul soliiitantului*, MDP, Bucharest.

Nadejde, S. (1999), 'Methodologie d'analyse de l'espace rural selon les criteres de l' 'aménagement du territoire', in V.Surd (ed), *Rural Space and Regional Development*, Editura Studia, Cluj-Napoca, 228-30.

Nica, N-A. (1993), *Criterii de definire a delimitare a spatiilor rurale defavorizate*, Urban proiect, Bucharest.

Nica, N-A. (1999), 'Disadvantaged Areas in the Context of the Rural Development Policy in Romania', in V. Surd (ed), *Rural Space and Regional Development*, Editura Studia, Cluj-Napoca, 219-22.

Olaru, M. (2000), 'Calea fierului banatean si hunedorean: produs turistic unicat in cadrul ofertei turistice romanesti', in E.Sabiel (ed), *Turism integrat: Banat si Maramures*, Editura InterGraf, Resita, 83-104.

Pascariu, G. (1993), *A New Framework concerning the Sustainable Development of Human Settlements*, Urbanproiect, Bucharest.

Popescu, C.R., Negut, S., Roznovietchi, I. et al. (2003), *Zonele miniere defavorizate din Romania: abordare geografica*, Editura ASE, Bucharest.

Primarie Municipiului Petrosani 2003, *Plan urbanistic zonal: zona de agrement Masivul Parang*, Getrix, Craiova.

Puwak, H. (1992), *Poverety in Romania: territorial distribution and the intensity of poverty level*, Romanian Academy, Institute for the Quality of Life, Bucharest.

Radu, N. (2000), 'Anina: o veche regiune industrială cu potential de viitor', in E.Sabiel (ed), *Turism integrat: Banat si Maramures*, Editura InterGraf, Resita, 147-56.

Ramboll Group (1996), *Disparitati regionale in Romania 1990-1994*, PHARE Politici regionale/Ramboll Grup de Constultanta, Bucharest.

Ramboll Group 1997, *Profiles of Romanian Development Regions*, RCG for PHARE Programme, Regional Development Policy, Bucharest.

Sageata, R. (2003), 'L'organisation administrative et territoriale de la Roumanie entre le modele traditionnel et les realites contemporaines', in R.Cretan (ed), *Fifth Edition of the Regional Conference of Geography: Geographical Researches on the Carpathian-Danubian Space: Reconsideration of the Geographical Approaches in the Context of Globalisation*, Editura Mirton, Timisoara, 601-10.

Săuleanu, D. and Pârlea D. (1997), 'Restructurarea în industria minieră: disponibilizarea fortei de muncă în bazinul carbonifer al Văii Jiului', *Revista Romana de Sociologie* 8(5-6), 505-18.

Timofticiuc, D. (2001), 'Zonele defavorizate sub monitorizarea guvernului', *Adevarul Economic* 10(37), 10.

Timofticiuc, D. (2003), 'In zonele defavorisate s-au creat 54,000 de locuri de munca: cu ce pret?' *Adevarul Economic* 12(31), 14.

Tismaneanu, V. (1997), 'Romanian exceptionalism?: demovracy ethnocracy and urcertain pluralism in post-Ceausescu Romania', in K.Dawisha and B.Parrott (eds), *Politics Power and the Struggle for Democracy in SEE*, Cambridge University Press, Cambridge, 403-51.

Turland, R. (2002), *Rosia Montana Project: Project Description*, RMGC, Rosia Montana.

Voiculescu, S. (1999), 'The village of Izvin: a case study of prospectiver geography', in V.Surd (ed), *Rural Space and Regional Development*, Editura Studia, Cluj-Napoca, 102-5.