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## Factors of population decline in rural areas and answers given in EU member states' strategies

One of the most pressing phenomena in recent decades in Europe's rural areas is population decline. This article summarises how the national sustainable development strategies (NSDS) and the national rural development programmes (NRDP) of the European Union (EU) Member States conceptualise processes of depopulation of rural areas. It gives a systematic overview of the main factors of population decline identified in the strategies and programmes and lists the objectives set and measures proposed by these documents. Although the majority of documents identify the depopulation process and all consider it to be a negative phenomenon, there are no commonly accepted objectives or principles regarding the desired extent of demographic changes in rural areas: the aims vary between 'reducing', 'stopping', 'stabilising' and 'reversing' the depopulation of rural areas. Most of the measures proposed against the population declined in NRDPs are linked to Axis 3 of the EU rural development pillar. Regarding sustainability, an upcoming question is the ecological consequences of rural depopulation. The authors suggest that rural policies need a stronger theoretical basis to respond this question and that future national sustainable development strategies should pay more attention to the problem.

Keywords: European Union, rural population decline, strategies, sustainability

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#### Introduction

While population decline is evident in several regions of the European Union (EU), at an aggregated level the population of the EU-27 still increased. In 2008 the demographic situation in the EU-27 confirmed a trend of continuing growth which has been unbroken since 1960 (Eurostat, 2011). In most of the north-eastern, eastern and partly the south-eastern areas in the EU, the candidate and EFTA countries, the population is decreasing. However the total population of the EU-27 will fall slightly by 2050 and this decline has started earlier in EU-12 countries (EC, 2007). Thus the countries most affected by a decreasing population trend are Germany (in particular the former eastern Germany), Poland, Bulgaria, Slovakia, Hungary, Romania and the three Baltic States, as well as the northern parts of Sweden and the Finnish region of Itä-Suomi (EC, 2009).

The main driver of population growth is migration, which has counterbalanced the negative natural change in many regions (EC 2009, 2011). As many EU Member States are currently at a point in the demographic cycle where 'natural population change' is close to being balanced or negative, the importance of immigration in maintaining population size increases. Interregional migration in Europe is lower than in the United States (Biagi et al., 2011). Differences are not simply in terms of degrees of mobility, the vast majority of evidence from Europe, in line with the most common theories to explain migration, the neo-classical macro theory of migration (Wiest et al., 2011), suggests that interregional migration is primarily driven by disequilibrium mechanism. Migration is mainly a response, albeit slow, to spatial differences in economic factors such as wages and employment opportunities. As well as demographic change, economic structural change and globalisation have also resulted in the shrinkage of some rural areas in almost all EU Member States. The results for factors of population decline show that this problem is even higher in rural areas of the EU-12.

Biagi et al. (2011) also underline that it is likely that

the transatlantic differences in the scale of the interregional migration process are due to the much greater institutional, cultural, historical and linguistic variation across space in Europe and North America. In Italy long distance migration is unrelated to natural amenities, while economic variables play an important role together with urban agglomeration economies. The results are different for short distance migration which is primarily directed towards relatively smaller provinces with a better quality of life.

In recent decades important changes have taken place in Europe's rural areas. One of the most pressing phenomena is population decline. This trend is not new, rural depopulation has been endemic since the 1850s and recent research confirms its continuation in many parts of Europe (Stockdale, 2006). Although population density did not change significantly in rural areas between 1995 and 2005 in most EU Member States (EC, 2008), this relative constancy at an aggregate level masks significant variations within and between EU Member States. To some extent the population decline is present in certain rural areas of almost all EU Member States. For example, Central Statistical Office data show that the population in the Hungarian Balmazújvárosi LAU 1 rural region declined by 6% in the last 20 years.

The major consequence of population decline is its implications for ecological systems. Changes in rural areas, such as depopulation and land abandonment, but also intensification and loss of biodiversity, usually proceed very slowly yet are often irreversible (Westhoek et al., 2006). Gross (2008) states that the challenge is 'the design of 'new nature' in post-industrial landscapes' (p.451). The question is how fields such as ecology and engineering, economics and sociology can fulfil their role as innovative players of sustainable development in times of population decline when 'there is no system for assessing beforehand whether or not re-naturalization, ecological restoration and other design activities will be successful' (p.451). The main target is 'to open up new development potentials for an economically, socially and ecologically sustainable combination of classical and technology-oriented industries, of tourism and leisure economy as well as science and research' (p.451), i.e. the main target is sustainable rural development.

Nevertheless, over the last two decades it has become clear that sustainable development is an extremely complex, and in many ways ambiguous concept (e.g. Goodland, 1995; Lélé and Norgaard, 1996; Bartelmus, 2003; Robinson, 2004; Dietz and Neumeyer, 2007; Martínez-Alier et al., 2010; Latouche, 2011; Kiss, 2011). Implementing sustainable development is difficult, slow and necessitates compromises. The concept itself has numerous, sometimes contradictory interpretations so it remains difficult to define the elements of the problem in an unambiguous way. Socio-political players do not always discern the theory's contradictions and uncertainties. In fact, they are often selective toward the theory's various representations, choosing those which suit their political and economic interests (Gáthy and Kuti, 2007). In EU documents (e.g. national sustainable development strategies (NSDSs) and national rural development programmes (NRDPs)), the concept of sustainability is usually not defined or only briefly and superficially dealt with. Generally they quote the Brundtland Report (Brundtland et al., 1987) definition and the vast majority of the strategies refer to 'three pillars', meaning the need to balance economic, social and environmental objectives. Most of the time they neither address implementational difficulties nor potential priorities, they only emphasise that equal attention should be paid to economic, social and environmental development. However the integration of the three relations into one policy is not equal with the three-pillar interpretation of sustainability (Kiss, 2005).

The concept of sustainable development originated in global ecology (e.g. Daly, 1993; Cleveland and Ruth, 1997; Karcagi-Kováts and Kuti, 2012). Using this as a basic starting point, the problem can be simply defined without distorting its core meaning: mankind has interfered in the global bio-chemical cycles to such an extent that not only the natural balance developed over years but also the existence of life on earth are threatened. It is therefore imperative to change human consumption and production patterns. This means that environmental objectives must have absolute priority, while economic and social considerations are subordinate to the Earth's capacity to absorb human activity. Economic and social considerations are also curtailed by the critical level of natural capital and other ecological constraints as defined by ecological economics. The strategies' aim is to transform society and its economy to make it possible to comply with ecological constraints. (Gáthy et al., 2006). Bodorkós (2010) observes that economy is embedded in ecosystem and society, and its growth has biophysical and social borders.

Many national and EU policies attempt to influence the direction of developments in rural areas. However, general driving forces such as macroeconomic developments and demographic changes will also have major impacts on Europe's rural areas (Westhoek *et al.*, 2006). NSDSs and NRDPs are indubitably amongst the most important policy instruments influencing rural affairs, especially as several authors (Gáthy and Kuti, 2007; Szabó and Katona-Kovács, 2009) have emphasised that the NSDSs should form the overall framework for all strategies. This is in line with the renewed EU Sustainable Development Strategy (EU, 2006),

where sustainability appears as a horizontal, cross-cutting principle in European policies.

The article examines how NSDSs and NRDPs interpret the issue of rural population decline by, firstly, summarising how these documents identify the main factors of rural population decline and, secondly, describing what are the objectives set and the solutions proposed by them.

### Methodology

National sustainable development strategies (official documents adopted by governments/parliaments or drafts, sometimes national reports, country profiles) and national rural development strategies/programmes of the EU Member States that were accessible in English, French, German or Italian were examined, analysed and compared. Altogether, 34 documents were analysed from 20 EU Member States<sup>1</sup>. Unfortunately, some NSDSs were not available (e.g. Bulgaria, Portugal) or only a short executive summary was available in English (e.g. Greece, Poland). Some small Member States (Belgium, Luxembourg and Malta) where rural development was not regarded as a central problem are not included. Slovenia does not have separate NSDS and this problem is not identified in Slovenia's Development Strategy. On the basis of the results, and keeping in mind the allocation of resources between the four Axes of the NRDPs, comparisons were made between NSDSs and NRDPs. Finally the factors identified and the answers given to them were compared between the EU-15 and the EU-12 Member States.

### Results

The results are presented in two tables. Table 1 lists those factors which were mentioned in NSDSs and NRDPs as reasons for population decline in rural areas of the EU, while Table 2 shows those measures which were mentioned in the documents as providing an answer to the problem. It is also indicated in Table 1 if the documents clearly identify the problem of depopulation.

### Main factors of out-migration from rural areas according to NSDSs and NRDPs

We emphasise that population decline is the cause and at the same time the consequence of the presented problems below.

Ageing population and unemployment. While in examined EU-15 Member States ageing population is the most often mentioned factor, in EU-12 countries unemployment is of higher importance in the depopulation of rural areas. These issues are evident in the NSDSs and in the NRDPs as well, but they are weighted more in the latter. The ageing of the population is an important point of concern in the depopulation process. In the Czech Republic the countryside is also threatened by the migration of young people to cities. The

<sup>&</sup>lt;sup>1</sup> Full details of the analysed documents, including Internet locations, are available on request from the corresponding author.

**Table 1:** Factors of population decline identified in the national sustainable development strategies (●) and the national rural development programmes (○) of selected EU Member States, ranked in order of importance.

Rural population decline																				
is clearly identified as a problem	•0	•	•0	•	0	•	•0	0	•0	•0	•0	•0	•0	•0	0	•0	•0	•0	•0	•0
Factor	EU Member State																			
	AT	CY	$\mathbf{CZ}$	$\mathbf{DE}^1$	DK	ES	EE	FR	FI	HU	IE	IT	LT	LV	$NL^2$	$PL^3$	RO	SE	$\mathbf{S}\mathbf{K}$	GB
Ageing population	•0	•	•0		0	•	0	•0	•0	0	0	0	0	•0	0	•	•0	•0	•0	0
Unemployment	0		0	•	0		0	0	•0	• 0			•0	• 0		• 0	•0		• 0	
Living conditions			0	•	0	•			0	0	•	•	0	0	0	• 0	• 0	•	•0	0
Social/public services	0		•0	•	0	•	0	0	•0	•		•		0		0	• 0	•0		0
Poverty/low wages	0	•	0		0		0	0		•0		0	0	•0			• 0	0	•0	
Women, young people			0		0		0	0	0	0		0	•	0		•	•0	0	•	0
Declining agriculture		•	0	•		•	0		0	•0		0				•	•0	0	•	0
Education			•		0		0		0	•	0	0		•0	0	0	•0	0		
Health services			0				0				0	0	•			• 0	•0			
Telecommunications/internet					0				0		0			•0			•0			
Climate change			0			•						•					•			
Quality of landscape				•							0	0			0					
Small local market			0						•									0		
Biodiversity, soil quality, etc.															0		•			

<sup>&</sup>lt;sup>1</sup> Due to its federal structure, the Federal Republic of Germany implements the rural development policy through rural development programmes established at the regional level of the Länder. In this respect, 14 regional programmes, and a programme related to the national network have been submitted to the European Commission's services.

Swedish RDP emphasises that it is important for the sustainable development of rural areas that they are able to attract young people to settle there. In *Hungary*, migration from the rural areas has intensified, most of the people have departed presumably in the hope of finding employment and a better standard of living. The smaller the settlement, the higher is the rate of unemployment and the worse are the conditions of living. Employment opportunities are particularly restricted in the case of people with low qualifications, middle or senior age and even more so with respect to women raising their children on their own. In terms of employment the Roma, which account for 5 to 6% of the population, are the least favoured, and in smaller communities and in regions of the country that suffer from permanently critical conditions their population ratio is considerably higher than the national average, and they are significantly overrepresented among the long-term unemployed. In Lithuania many problematic territories with extremely low rates of employment and depopulation trends have formed. The possibilities for economic development of regions with such territories decrease.

**Living conditions**. Living condition is rather a problem of EU-12 countries, defined among the second most important factors in NRDPs, while it is defined only in one third of the examined EU-15 documents. Research shows that *Dutch* people live better in the country than in towns. Rural dwellers have more space, are more involved in society and are more likely to have a car. However, the town is better for young people, or for the single elderly. Compared with urban areas, working conditions in rural areas are slightly worse for women than for men. In the *Czech Republic* the depopulation of the countryside areas has stopped; however, this is because of the massive construction boom of single-family houses in the vicinity of large towns and the creation of dense satellite towns in these areas.

**Social/public services**. Living conditions, availability of services are an often mentioned problem in EU-12 NRDPs.

In Romania, access to the public water supply network among the rural population is limited to one third with actual access to the system, while access to the sewerage system is even more. This situation is clearly negative in terms of the potential impact on the health and well-being of families in the rural area. The existence of a poorly-developed basic infrastructure in most communes acts as a limitation on the development of other basic services in the rural areas (cultural and recreational facilities, childcare and elderly facilities, public transport services etc.) The problem is observable even in the EU-15 countries, also as a second most often defined factor. For example the *Italian* NRDP stresses that the characteristics of intermediate rural areas are the sources of numerous problems of a socio-economic type for several reasons: the infrastructural resources are typically rural, essentially tied to roads and railways with connections and services that are often meagre; the same is true of telecommunications infrastructures, with broadband Internet serving a minority of the population; the situation of services for the population is likewise problematic: there is one hospital bed for every 332 inhabitants and numerous municipalities lack postal and banking services. In Sweden some rural areas have experienced extensive depopulation, which has also led to deteriorations in the range of services on offer.

**Poverty/low salary**. Although defined as a problem in all EU Member States in this study, there is a big difference between the NRDPs of the EU-27. Less than 50% of the examined EU-15 NRDPs underline the factor of poverty while it is nearly 90% in the examined EU-12 NRDPs. The *Hungarian* NRDP stresses that as in rural areas – and particularly in smaller communities – there is a greater ratio of manual workers and people with a lower level of schooling due to the character of the economic structure, income handicaps are also manifested in this regard. In villages the ratios of inhabitants having completed only elementary school as the highest level of education, or not even that, are 24 and

<sup>&</sup>lt;sup>2</sup> Only a summary of the strategy is available in English.

National Development Strategy

19%, respectively. Thus 43% of the population of villages has no qualification at all. The difference is further aggravated by the generally smaller ratio of population in the economically active age bracket, the higher rate of unemployment and the smaller proportion of the employed. These conditions remarkably influence the demographic processes and trends taking place in the smaller communities, the migration of the population capable of work, thereby speeding up the decline of these settlements and their abandonment over the longer term.

Declining agriculture. Although rural development instruments are part of the second pillar of the Common Agricultural Policy, declining agriculture is not the most important factor in the NRDPs. It is also important to note that, between the selected factors examined, their role in the NSDSs' rank is higher than in the NRDPs' rank. In Estonia the development of rural areas is mostly influenced by low population concentration and persistent decrease in the share of agriculture in enterprise. By now, the share of agriculture in the structure of rural enterprise has decreased to approximately 50%. More machinery is used in agriculture and therefore many people have had to find occupations elsewhere. At the same time, the jobs created in the secondary and tertiary sectors have compensated for less than one third (28.9%). Therefore, in the rural areas, employment rate is lower than in cities and the number of employed has also decreased. Of statistical indicators, only falling unemployment rate is positive (7.7%) in rural areas. At the same time, the small number of suitable jobs and unemployment are problems in rural areas.

**Education**. In *Hungary*, rural areas have a much lower rate of college or university graduates and even high school graduates than the national average, with vocational secondary school or mere elementary school education being the highest completed education of most residents. One of the major obstacles to rural economic restructuring is the discrepancy between the actual needs of the economy and the structure of education and (vocational) training. There is a shortage of labour force with the education and professional knowledge required by the prospering branches of the economy in the rural areas, mostly due to migration from the areas. As the Swedish NRDP emphasises, it is not in itself a problem that young people move away to experience a change of scene or to study; it is often beneficial for the dynamic development of the individuals themselves and for society as a whole. It is, however, of the greatest importance for rural areas that they can provide attractive jobs and social environments so that young people are able and willing to return, after for example completing their education. The Dutch NRDP mentions that rural dwellers generally have a lower level of education. However, their education is well suited to the available work, including work in tourism.

Climate change. The Czech NRDP draws attention to the fact that climate change also represents a risk for the countryside due to the more frequent occurrence of extreme weather conditions, which threaten both agricultural production and the property of rural inhabitants. Agriculturally managed ecosystems contain important elements of biological diversity important for ensuring food production, ecosystem functioning and a safe life. Sustainable usage is the presupposition for maintaining biodiversity in agricul-

tural ecosystems. The opposite side of this trend is a fall in the competitiveness of a number of farmers, particularly in the disadvantageous areas. For this reason almost 7% of the agricultural land is threatened by abandonment and the associated processes of degradation in the species-rich parts of the agricultural ecosystem.

Quality of landscape. Maintaining the sustainable quality of landscape is also a matter of concern. In the *Netherlands* the Social and Economic Council (SER) identifies a number of challenges when it comes to improving the rural economy and the broad development of rural areas, namely: the range of tourist and leisure facilities does not adequately meet the requirements of the public; the ageing of the population means that the need for housing in rural areas is increasing, including combinations of residential, retail and other facilities. In general the quality of life is improving as more and better housing becomes available; decline in services: combined provision can offer solutions to this problem.

**Local markets**. The *Finnish* NSDS draws our attention to an interesting aspect: in terms of rural development, it is problematic that the network formed by cities in Finland is not dense enough to cover the entire country, meaning that rather isolated regions remain between the city-regions. These areas are in the weakest position due to an unbalanced business structure, the lack of employment opportunities and the small size of local markets.

**Biodiversity**. The *Italian* rural development programme emphasises that in forest areas the problems of the preservation of biodiversity are mainly attributed to the lack of adequate strategic forestry planning, the difficulty of activating and maintaining active and ecologically compatible forest management, fires, fragmentation of property and, in some cases, of woodland ecosystems, as well as the abandonment of woods and woods-related and pastoral activities due to the depopulation of mountain areas.

### Measures proposed against the population decline by NSDSs and NRDPs

In the face of the problems and needs presented in the previous section, and on the basis of the instrumentation made available by the regulation on rural development, the most suitable lines of intervention may be in particular as follows.

**Diversification of agriculture** (Measure 311 in the NRDPs) is the most often mentioned instruments in both in the NSDSs and the NRDPs in the examined EU-27 Member States. The purpose of the measure is primarily to improve the earnings position of the rural population living from agriculture, to create and preserve jobs outside agricultural activities that may contribute to reducing the out-migration from rural areas and to improving the rural living conditions. In the *Hungarian* NRDP for the measure 311 the eligible areas include among others: non-food purpose processing, direct sale of locally made (food and handicraft) products, fostering connection to distribution networks; support to marketing of locally made products; development of supply of devices for craftsmen and handicraft activities. In Romania the following actions will be supported among others: tangible investments (construction, modernisation, building

**Table 2:** Measures proposed to address population decline in the national sustainable development strategies (●) and the national rural development programmes (○) of selected EU Member States, ranked in order of importance.

Measures proposed	EU Member State																			
	AT	CY	$\mathbf{CZ}$	$\mathbf{DE}^1$	DK	ES	EE	FR	FI	HU	IE	IT	LT	LV	$NL^2$	$PL^3$	RO	SE	SK	GB
Diversification of agricultural development	•0	•0	•0	•	0	•	0	•0	•0	•0	0	•0	•0	•0	0	•0	•0	0	•0	0
Availability of services	$\bullet$ $\circ$		•		0	•	0	0	•0	•0	•0	•0	•0	•0		• 0	•0	•	•0	0
New workplaces	$\bullet$ $\circ$		•0	•	0	•	0		•0	0	0	•0	•0	•0	0	•0	•0		• 0	
Tourism/Agro-tourism			•0	•	0			•0	•	• 0	•0	0	•	•		0	•0	•	•0	
Supporting entrepreneurship		•			0				0	0	0	0	•	•0	0	•0	•0		•0	•0
Development of small business/market			•0					0	•0	0	0	•0	0	0	0	•0	•0		•	
The support of renewable sources of energy	0		•0		0		0	0	•	0		0	0			•0	0	•	0	0
Increasing income level/ quality of life/living standard	•	•	•			•	0	•	0	0		0	•	0		0	0			•0
Preservation of forms of culture and life in rural areas		•	•		0	•			•0			0				0	0	•		•0
Increasing the quality of primary schools/education	0		•	•	0	•						0	•0	0			0			
The support of organic farming			•	•			0			0		•	0	0		•0	0			
Renewal of local identity/ cohesion/social capital	•		0	•							0	0								
The role of forestry in providing employment	•			•		•			•		•									
Supporting the regeneration of rural areas		•	•														•0		•	
Modernisation of irrigation						•											0			
Change in biodiversity trends																				

<sup>&</sup>lt;sup>1</sup> Due to its federal structure, the Federal Republic of Germany implements the rural development policy through rural development programmes established at the regional level of the Länder. In this respect, 14 regional programmes, and a programme related to the national network have been submitted to the European Commission's services.

extension with a productive purpose; the relevant endowment with equipments etc., inclusively the leasing purchasing of those); intangible investments (software, patents, licences etc.), inclusively the leasing purchasing of those. Even in *Denmark*, where the population decline seems not to be severe concern the NRDP underlines that the measures under Axis 3 contribute to the overall priority of the creation of employment opportunities in rural areas in non-agricultural activities and services. This is an answer to the trends towards economic and social decline as well as depopulation of the countryside.

**Services**. Making services available is the second most important measure both in the NSDSs and the NRDPs in EU-27 Member States. The *Lithuanian* NSDS had to set amongst the main mid-term tasks to ensure that 80% of all Lithuanian inhabitants are connected to high quality public water supply networks and that the rural population has a possibility to use good quality drinking water (especially in the north-western regions of Lithuania where fluoride concentrations in drinking water are too high).

**Encouragement of tourism activities** (Measure 313 in the NRDPs). Creation of new workplaces is emphasised in the NSDSs and the NRDPs especially in the case of EU-12 Member States. The most commonly mentioned sector as an answer is tourism. Tourism as a sector has a significant growth potential throughout Europe, but this measure is much more underlined in EU-12 Member States, where possibilities for tourists are not as well developed as in EU-15

Member States. It can create new employment opportunities for rural areas as well as prevent increasing economic and social inequalities in rural areas and out-migration. The Dutch RDP suggests that countryside is gradually changing from a physical space for food production into a 'consumption space'. The rural areas belong to everyone. Everyone wants to enjoy nature, landscape and cultural heritage, and people want to see authentic landscapes. For the rural population this means both new challenges and new sources of income. The natural landscape specific to Romania offers excellent possibilities for rural tourism, an issue that allows recreation in rural environment, experiencing some novel activities, participating in different representative events or visiting some attraction points, which are not available in the urban areas. The Romanian NRDP underlines that the support for tourism infrastructure and tourism services is needed for two reasons: firstly to create and promote competitive tourism in the rural area and the secondly to set up local networks in order to promote and supply these services, with an active involvement of the rural population, especially young people and women. The Romanian rural areas are very important in economic and social terms as well as in respect to their size, diversity and in terms of the large human and natural resources which are contained therein.

**Increasing income level and living standards** are measures which are given a higher importance in the examined EU-12 NRDPs than in the EU-15 documents. Fehér *et al.* (2010) in their work on examining motivation and intentions

<sup>&</sup>lt;sup>2</sup> Only a summary of the strategy is available in English.

<sup>&</sup>lt;sup>3</sup> National Development Strategy.

of farmers as regards the development of multifunctional agriculture in microregions of northern and eastern Hungary consider the 'most urgent measures for farmers in their micro-regions to be the improvement of living standards for local inhabitants' (p.75).

In their NRDPs the examined EU-12 Member States propose more measures with higher importance than EU-15 Member States, showing the difference between the two groups (Table 2).

### **Discussion**

Although measures proposed in the NSDSs and the NRDPs to combat the identified factors of population decline are in line, such as new workplaces to reduce unemployment or availability of services to address the problem of living conditions/services, available data show that they do not give an effective answer to the population decline in rural areas of the EU. For example in *Hungary*, positive changes in this regard have occurred only in Central Hungary and the Western and Central Trans-Danubian NUTS 2 regions, while the migration balance seemed to be less favourable in the regions of Northern Hungary and the Northern Great Plain. If current trends remain, we should expect an unfavourable change in the age structure of the population in all regions, a continuing decrease in the population of economically active age, and the concomitant rise in the number of inactive citizens.

It is not clear how effective strategic programmes can be. General worldwide factors, such as structural development and fluctuations in economic climate, are judged to be of greater significance to the socio-economic situation in rural areas than the rural development programme. Most rural changes are rather evolutionary than planned transition (*sensu* Loobarch and Rotsmans, 2006). Changes in rural areas are often indirect. Science has to identify objective trends and clarify the scope of political plans and strategies.

Although all documents consider the depopulation process as a negative phenomenon and put it amongst the weaknesses/threats of their SWOT analysis, national rural development programmes describe and analyse the phenomenon more thoroughly do than NSDSs. National sustainable development strategies should pay more attention to the problem. While the EU gives guidelines in the form of regulations for NRDPs, there are none for NSDSs.

There is also no commonly accepted objective or principle about the desired extent of demographic changes in rural areas. We can find different expressions in the strategic documents that are sometimes contradictory, as the terms used in the *Danish* RDP show: the challenge for the rural areas is 'to discourage outward migration' (p.36); 'it is considered crucially important to avoid depopulation of the small islands' (p.25); 'the overall programme contributes to stabilising the rural population' (p.45); 'to reverse the negative trends of economic and social decline and depopulation' (p.205); 'to prevent further depopulation in rural areas' (p.212).

Some other examples: 'the major problem of the countryside is not the preservation of agriculture anymore, but the <u>stabilisation</u> of the rural population'; 'reducing the migration of the population to cities' (Czech RDS); 'It is essential to form the policy and its instruments in such a way as to stop that process and significantly change the situation in the Polish rural areas' (Polish RDP); 'increase living standards by improving the attractive feature of rural settlements in order to reverse outward migration and negative trends of economic and social conditions and depopulation of the countryside' (Hungarian RDP); 'revitalisation and revival of rural areas, qualitative development of urban settlements' (Slovak SDS); 'Tourism stabilises population in rural areas' (Slovak RDP); 'to increase the attractiveness of the rural areas and reduce the migration of young people to urban centres' (Romanian RDP); 'necessary to increase the number of young farmers operating in agriculture' (Romanian RDP); etc. We think that rural policies need a stronger theoretical basis to respond this question. Weber (2010) finds it important to successfully control and also design shrinking regions in spatial planning, and accomplish the control of shrinkage.

As mentioned above, the Czech NRDP emphasises that the major problem of the countryside is not the preservation of agriculture anymore, but the stabilisation of the rural population. The share of the workforce in the agricultural sector is not a sufficiently stabilising factor of the rural population. There is need for change in the economic structure of the countryside and the creation of an attractive environment for living as well as economic enterprise, including the conditions for small entrepreneurs, i.e. to support a creation of new jobs by diversification away from agriculture as well as the general improvement of the quality of life in the rural areas. Business risk fear and insufficient financial resources are the barriers for microenterprise creation in rural areas. In Cyprus, the last few years have indicated a declining trend in local agricultural practices due to the fact that the rural population is continuously shrinking.

As an answer to this change in economic structure, in line with results of other research, most of the measures proposed in NRDPs to address population decline are linked to Axis 3 of the EU rural development policy, which underlines the importance of this axis and its measures in the future as well. Ferrer and Kaditi (2007) state that 'rural development policies are moving in the right direction, but targeting the endogenous growth potential of rural areas requires much more support to non-agricultural activities. The redistribution of resources between the direct payments and rural development should be increased and the shares of funding between the four axes of the policy changed' (p.38). Furthermore, research in rural development has developed new concepts, such as degrowth (Mészáros, 2011), rural resilience (Heijman et al., 2011), rural web (van der Ploeg et al., 2008) and Rural Europe 2+2+ (Fieldsend, 2011), that should be taken into consideration by future strategies.

Amongst the factors of population decline, strategic documents should pay more attention to economic and social elements; ecological considerations should be mentioned in an explicit way. We think that ecological aspects of the depopulation process should be examined in depth. In *Italy* in some less favoured areas, in many cases the economic fabric is 'thin' and phenomena related to the abandonment of agricultural activities and depopulation can create problems in terms of hydro-geological instability, conservation of the

landscape and 'desertification', especially in mountain areas, which are frequently very important from the nature standpoint. The administration of less favoured areas can play an important role with respect to the needs of such areas, but without a doubt in the current changing contexts the validity of the compensatory approach remains limited with respect to the objective of maintaining of a vital rural community and conserving the natural environment at an equitable level. In the French SDS, in order to encourage the sustainable management of natural and rural areas (including the species that they are home to) in accordance with local players, in a decentralised framework and covering the whole territory, the Government shall initiate an in-depth study concerning the refounding of the natural heritage public policy. It shall lead to a change in the current intervention methods of the public authorities. The conservation of biodiversity must be firmly established in space utilisation and territorial planning policies. Beyond the network of remarkable natural areas, the upholding of ecological link zones is essential to allow the circulation of the animal and plant species living there.

Heijman *et al.* (2011) state that landscape design and spatial organisation determine and influence system resilience at multiple scales, from the scale of a farm or village through communities to regions. In their view the functions of the rural areas are (a) Agriculture and agribusiness, and (b) Rural services, where agro-cluster and rural services are often conflicting. They call for a classification of rural regions in the EU to be developed. Rural regions that are especially qualified for public and private rural services should be facilitated with regulations in that area. Regions that are specially endowed for the agro-cluster (agriculture plus agribusiness) should specialise in that area. Furthermore, in the area of nature management, the development of a European crossborder ecological main structure could be considered.

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### References

- Bartelmus, P. (2003): Dematerialization and capital maintenance: two sides of the sustainability coin. Ecological Economics **46**, 61-81.
- Biagi, B., Faggian, A. and McCann, P. (2011): Long and Short Distance Migration in Italy: The Role of Economics, Social and Environmental Characteristics. Spatial Economic Analysis 6 (1), 111-131.
- Bodorkós, B. (2010): Társadalmi részvétel a fenntartható vidékfejlesztésben: a részvételi akciókutatás lehetőségei [Public Participation in Sustainable Rural Development: The Potential of Participatory Action Research] Doctoral dissertation. Gödöllő: Szent István Egyetem.
- Brundtland, G.H., Khalid, M. and others (1987). Report of the World Commission on Environment and Development "Our Common Future". Annex to UN General Assembly document A/42/427. New York: United Nations.

- Cleveland, C.J. and Ruth, M. (1997): When, where, and by how much do biophysical limits constrain the economic process? A survey of Nicholas Georgescu-Roegen's contribution to ecological economics. Ecological Economics **22**, 203-223.
- Daly, H.E. (1993): Steady-State Economics: A New Paradigm. New Literary History **24**, 811-816.
- Dietz, S. and Neumayer, E. (2007): Weak and strong sustainability in the SEEA: Concepts and measurement. Ecological Economics **61**, 617-626.
- EC (2007): Europe's Demographic Future: Facts and Figures on Challenges and Opportunities. Brussel: European Commission.
- EC (2008): Rural Development in the European Union Statistical and Economic Information (Report 2008), Brussel: European Commission.
- EC (2009): Eurostat regional yearbook 2009. Brussel: European Commission
- EC (2011): Eurostat regional yearbook 2011. Brussel: European Commission.
- EU (2006): Renewed EU Sustainable Development Strategy. 10117/06. Brussel: Council of the European Union.
- Fehér, A., Czimbalmos, R., Kovács, Gy. and Szepesy, E. (2010): Motivation and intentions of farmers as regards the development of multifunctional agriculture in microregions of Northern and Eastern Hungary. Studies in Agricultural Economics 111, 65-76.
- Ferrer, J.N. and Kaditi, E.A. (2007): The EU added value of agricultural expenditure from market to multifunctionality gathering criticism and success stories of the CAP. Brussel: European Parliament.
- Fieldsend, A.F. (2011): Rural Europe 2+2+: A conceptual framework for a rural employment policy. Studies in Agricultural Economics **113** (2), 145-151.
- Gáthy A. and Kuti I. (2007): The complexities of European strategy design the case of agriculture. Studies in Agricultural Economics **106**, 5-22.
- Gáthy, A., Kuti, I. and Szabó, G. (2006): Fenntartható fejlődési politikák és stratégiák az Európai Unióban [Sustainable development policies and strategies in the European Union], in Bulla Miklós and Tamás Pál (eds), Fenntartható fejlődés Magyarországon (Jövőképek és forgatókönyvek). Budapest: Új Mandátum Könyvkiadó, 165-194.
- Goodland, R. (1995): The concept of sustainability. Ecodecision **15**, 30-32.
- Gross, M. (2008): Population decline and the new nature: Towards experimental "refactoring" in landscape development of postindustrial regions. Futures 40, 451–459.
- Heijman, W., Hagelaar, G. and van der Heide M. (2011): Rural resilience as a new development concept, in D. Tomić and M.M. Ševarlić (eds), Development of Agriculture and Rural Areas in Central and Eastern Europe. Thematic Proceedings of the 100th Seminar of the European Association of Agricultural Economists. 21-23 June 2007, Novi Sad, Serbia, 383-396.
- Karcagi Kováts, A. and Kuti, I. (2012): A készletek általános elmélete és a fenntartható fejlődés [General theory of stocks and sustainable development]. Magyar Tudomány 2012/2, 216-225.
- Kiss, K. (2005): A fenntartható fejlődés dimenziói és útvesztői [Dimensions and labyrinths of sustainable development], in Kerekes S. and Kiss K. (supervisor, ed.) A fenntartható fejlődés fogalmának hazai értelmezése és ágazati koncepciói, Budapesti Corvinus Egyetem, Budapest, Hungary, April 2005, 6-22.
- Kiss, K. (2011): Rise and Fall of the Concept Sustainability. Journal of Environmental Sustainability 1, 7-18.
- Latouche, S. (2011): A nemnövekedés diszkrét bája [The challenges of degrowth]. Szombathely, Hungary: Savaria University Press.
- Lélé, S. and Norgaard, R.B. (1996): Sustainability and scientist's burden. Conservation Biology 10, 354-365.

- Loorbach, D. and Rotmans, J. (2006): Managing transitions for sustainable development, in Krijn J. Poppe *et al.* (eds) Transitions towards sustainable agriculture and food chains in peri-urban areas. Wageningen: Wageningen Academic Publishers, chapter 2.
- Martínez-Alier, J., Pascual, U., Vivien, F-D. and Zaccai, E. (2010): Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm. Ecological Economics **69**, 1741-1747.
- Mészáros, S. (2011): Nemnövekedés: egy új gazdasági paradigma európai fejleményei. [Degrowth: European developments of a new economic paradigm] Gazdálkodás **55** (3), 259-265.
- Robinson, J. (2004): Squaring the circle? Some thoughts on the idea of sustainable development. Ecological Economics 48, 369-384
- Stockdale, A. (2006): Migration: Pre-requisite for rural economic regeneration? Journal of Rural Studies 22, 354–366.
- Szabó, A. and Katona-Kovács, J. (2009): A magyar Nemzeti Foglalkoztatási Akcióterv vizsgálata a Rural Jobs kutatás kapcsán.

- [Analysis of the Hungarian National Action Plan for Employment in the Framework of RuralJobs International Project] Acta Agraria Debreceniensis **33**, 77-87.
- van der Ploeg, J.D., Ostindie, H., van Broekhuizen, R., Brunori, G., Sonnino, R., Knickel, K. and Tisenkopfs, T. (2008): Towards a new theoretical framework for understanding regional rural development, WP2 Synthesis Report, Enlarging Theoretical Understanding of Rural Development (ETUDE), EU Framework 6 project.
- Weber, G. (2010): Shrinking process in rural areas. Presentation at the EURORURAL '10 European Countryside under Globalisation Conference', Brno, 30 August 2010.
- Westhoek, H.J., van den Berg, M. and Bakkes, J.A. (2006): Scenario development to explore the future of Europe's rural areas, Agriculture, Ecosystems and Environment 114, 7–20.
- Wiest K., Leibert, T. and others (2011): SEMIGRA Selective Migration and Unbalanced Sex Ratio in Rural Regions; Targeted Analysis 2013/2/15; Inception Report; 2 March 2011. Luxembourg, ESPON.