

## *Rural Development Indicators and Diversity in the European Union*

*John Bryden<sup>1</sup>*

### *Abstract*

This paper will discuss the main findings and recommendations of a report for Eurostat<sup>2</sup> on rural development indicators (Bryden, Copus and MacLeod, 2002). Findings of recent research on the Dynamics of Rural Areas (DORA) in the EU<sup>3</sup> will also be taken into consideration. The main question in the Eurostat work was: in the light of recent changes in rural policies what new social and economic indicators are needed and have been developed by individual EU Member States which might feasibly be applied at EU level? We proposed a ‘territorial’ framework and identified three main indicator themes concerning: Social Well-being, Economic Structure and Performance, and Population and Migration. Within these themes we assessed some 500 indicators using the standard criteria of sensitivity, analytical soundness, comprehensibility, reference value, and policy relevance. From these, we selected 55 indicators that we considered to represent “best practice” in addressing the needs of Rural Development policy makers and practitioners. The DORA research on the other hand was aimed at identifying the main factors responsible for differences in economic performance over the medium term (10-20 years) among rural areas in similar geographical and policy contexts.

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<sup>1</sup> Professor John Bryden is Co-Director of the Arkleton Centre for Rural Development Research and Chair of Human Geography at the University of Aberdeen, Scotland. At the time of this conference, he was also RUPRI Fellow 2002 and Visiting Professor at the Truman School of Public Affairs, University of Missouri-Columbia. Email: [jbryden@abdn.ac.uk](mailto:jbryden@abdn.ac.uk)

<sup>2</sup> The European Union’s Statistical Office, based in Luxembourg.

<sup>3</sup> ‘DORA’ – a 4-country, 16 study area project funded under the Fourth Framework Programme for Research and Technology Development and completed in December 2001. See Bryden, et al (2001) and Bryden & Hart (2003f).

## *Introduction and Policy Background*

Both the ‘real’ and the ‘perceived’ problems of rural areas and people have changed markedly in the European Union, especially in the past 15 years or so. The message that rural economies and societies today are quite different from those of 25-30 years ago was driven home by the Foot & Mouth epidemic in the UK, which revealed that the losses to rural economies were mostly suffered by *non-farmers* for whom no compensation mechanisms existed.

Our understanding of ‘rural policy’ has also changed<sup>4</sup>. The emerging critique of the common agricultural policy, coupled with the completion of the ‘single market’ and the significant national and regional inequalities emphasised by southern enlargement of the EU in the 1980’s, produced a *territorial approach* to rural policy. This was driven by the goal of *economic and social cohesion*, and recognition of the need to achieve this through *subsidiarity* (devolution to regional and local levels), *partnership*, and an *integrated approach* to territorial development<sup>5</sup>. The evidence for this is in the reform of the structural funds in 1988<sup>6</sup>, and subsequent European Commission paper on ‘The Future of Rural Society’, as well as in the explicit recognition of the development of rural areas as a part of economic and social cohesion policy in the Maastricht Treaty of 1992 (the so-called *Treaty of Union*). Even if the ambitious goals of the Cork Declaration<sup>7</sup> were not met by Agenda 2000, it is clear that territorial rural development is what really matters for the future of the Union before and especially after the Eastern Enlargement.

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<sup>4</sup> A more detailed discussion of the emergence of territorial rural policies is contained in my OECD discussion paper of 1999.

<sup>5</sup> The most important examples being the use of partnerships between public, private, and voluntary sectors in the development and implementation of local and regional policies, as in the Objective 1 and 5b Regional Development Programmes under the EU Structural and Cohesion Policy and the Community Initiative, LEADER.

<sup>6</sup> The Structural Funds are the Regional Development Fund (ERDF) the Social Fund (ESF), the ‘Guidance Section’ of the European Agricultural Guidance and Guarantee Fund (EAGGF) and the Fishing Industry Guidance Fund (FIFG), together accounting for about 30% of the EU budget. The 1988 reforms established the principles of **concentration** of resources in the poorest regions, **programming** at regional levels, **partnerships** in the programming and implementation process, and **additionality** with respect to the relationship with national funding for the regions concerned.

<sup>7</sup> The EU held a major international conference on rural development in 1996 in Cork, Ireland, and the ‘Cork Declaration’ was its main visible product. Among other things this proposed a new Rural Development Fund that could fund locally devised *integrated development* plans.

It cannot be denied that sectoral agricultural policy remains the largest single element in the EU's budget, accounting for some 40% of the total as compared with perhaps 5% on territorial rural development. However, while most agricultural policy spending is 100% funded by the EU, territorial development policies are co-funded by member States and regions, and many member States also have significant national programmes of territorial (regional and rural) development. There is a less than obvious tension between agricultural policy and territorial rural development policy, which exists both inside and outside the European Commission. This tension is fuelled by the fact that farming lobbies portray agricultural policy budgets as *their property*, and *their entitlement*, as well as being inevitably 'good' for rural economies and societies. Equally, it is fuelled by internal differences within the bureaucracy – within the Directorate General for Agriculture (DG Agri), and between that DG and that for Regional Development (DG Regio). For the researcher seeking to identify clear policy goals, issues, and hence define a set of indicators which can inform policy, this is not a comfortable tension to be faced with. To put it bluntly, there are quite a few people in the EU and in various lobbies who still believe that rural development indicators should *only* be about agriculture.

To perhaps one half of the European Commission, some powerful member States, and an uneasy alliance between environmental and agricultural lobbies, the big policy issue of the day is the 'European Model of Farming' which the Commissioner for Agriculture claims represents both a continuing justification for agricultural subsidies, and a sacrosanct principle in the World Trade Talks. This is a model of *multifunctional agriculture* producing a range of public and private goods, especially positive environmental and cultural impacts, pleasant landscapes, and safe and quality foodstuffs produced with due regard to animal welfare. This model underpinned both the Agenda 2000 reforms of 1999 and the proposals in the mid-term review in July 2002. In particular it is the foundation of the so-called, and much misunderstood, 'rural development regulation,' at least 90% of which is directed towards farming clients<sup>8</sup>.

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<sup>8</sup> In 2000, I examined the national proposals for implementation of the rural development regulation for two conferences in Finland and a later one in Aberdeen. More recently, Lowe and Ward at Newcastle University have been examining the final plans and budgets. I have seen none of their findings to date contradict my earlier assessment of the draft national proposals.

To the other half, however, the development of rural regions and localities within regions remains the big policy issue, and one that seems bound to grow with eastern enlargement. This is in fact my own position, and so it is hardly surprising that I will talk mostly about this today. In this vision, agricultural - or more properly commodity - policy is just one of a range of national or transnational policies that impact on rural economies and societies, but that were not *designed* to produce rural development. The Finns call these ‘broad rural policies’ and they typically include policies for agriculture, forestry, fishing, social welfare, transport and infrastructure, public lands, environment and national parks, health and education, housing, trade, local government, energy, and so on. The goal of such policies is not commonly rural development, and they may indeed have *perverse* effects on rural economies and societies. Policies that explicitly aim at rural development on the other hand are ‘narrow rural policies’ – in the EU they include the regional development programmes involving the structural funds in priority Objectives 1 (formerly 1 and 6), and 2 (formerly 5b) regions, and the local development programmes under LEADER+ (formerly, LEADER 1 and 2). But there are also significant national programmes for the development of rural regions in Spain, Finland, Sweden, the UK, Ireland, Germany, and other member countries.

In many OECD countries, we are seeing increased discussion of both ‘broad’ and ‘narrow’ rural policies, and how to coordinate these in order to improve policy effectiveness. This is the purpose of what we in Europe call ‘rural policy proofing’, and what Canada calls the ‘rural lens’. The idea here is to check all policies for their rural implications and to make sure that rural impacts are taken into account in the policy-making processes.

### ***Defining and delimiting ‘rurality’***

Both defining and delimiting rurality is a necessary, but difficult, first step for indicator development. A common definition of rurality is elusive. Historically, rural-urban dichotomies, (based on an assumption that urban and rural development issues were diametrically opposed) underpinned both socio-economic analyses and policy direction. It is increasingly recognised, however, that this dualism is becoming less significant as the inter-relationships between urban and rural areas become more complex and new types of functional relationship develop. Efforts

to typologise rurality for both national and European policy reflect these changes, and urban-rural classifications have developed from simple density approaches towards more complex classifications, based on the functional relationships between rural and urban areas.

Having decided how to define and typologise ‘rurality’, we also need to determine the size and configuration of the territorial unit to classify. Depending on the policy question or issue that is being addressed, very different concepts, sizes, or configurations of territorial units are required to address the issue and to provide policy-relevant information. For example, labour market issues are usually most appropriately addressed within the context of the “functional labour market” in which a person (or territorial unit) is located<sup>9</sup>. For other purposes, however, a *degree of rurality* (that could be based on concepts of the ‘cost of distance’ or the ‘cost of (low) density’) may need to be assigned to each territorial unit. For yet others, a ‘bio-region’ or ‘water catchment’ area may be needed. *This supports the case for data to be assembled at the finest possible spatial level, allowing territorial units to be assembled in different ways for different purposes.*

The question of spatial scale is absolutely crucial. Indicators that are only available at a national level are unlikely to have utility when applied to rural areas, even when produced for a sector apparently synonymous with rural areas, such as agriculture. In reality, of course, the scale of the indicator used is determined by data availability.

### ***Issues and Indicators***

In the EU, the renewed interest in rural development is generating increasing demands for the measurement of:

- *the rural situation*, its structure and its problematique;
- *progress, trends, and “development”* in this situation; and
- *the level of well-being of rural citizens.*

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<sup>9</sup> The OECD Working Party on Territorial Indicators has launched a preliminary study on the role / contribution of “functional areas”. The objective is to assess alternative sub-national units for the collection and analysis of territorial indicators. It would appear obvious that “functional labour markets” would be preferred for the analysis of labour market issues but may not be ideal for the analysis of other issues.

The devolution of policy making and implementation in many fields to local and regional levels together with recognition of increasing diversity of rural areas and the trends within them provide cogent arguments for statistical indicators of “local” (sub-national) territorial units. Examples are the implementation of LEADER<sup>10</sup> and Structural Fund programmes and, in some jurisdictions, health, planning, social work, environmental programmes, education and training initiatives. Equally, if scarce resources are to be prioritised at national or EU level, and programmes at these levels are to be flexible enough to deal with diversity, then decision-making processes at EU and national levels need to be informed by appropriate local and regional data. Finally, in the EU there is a growing culture and practice of policy evaluation, both formative and summative, which needs to be based on reliable data at appropriate levels.

Efforts within Member States to create territorial indicators for rural development are still at a fairly early stage, mainly because many strategies, policies, and programmes are still treated at the sectoral rather than territorial level. At the OECD and European level, there has been a concerted effort to set an example for member countries. The Rural and Regional Development Division of the OECD Territorial Development Service (TDS) was established in 1994 to bring together formerly dispersed programmes on urban affairs and rural development and regional policy. Progressing the work of the earlier Rural Development Programme, the TDS has established an internationally consistent database that covers over 2,500 sub-national regional units across OECD countries. The OECD has developed a set of demographic, economic, social, and environmental indicators that classifies territories according to analytical requirements, such as rural/urban and lagging/leading.

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<sup>10</sup> LEADER, a three-Fund ‘community initiative’ was launched by the European Commission in 1990 and aimed at supporting Local Action Groups (partnerships) in integrated ‘bottom up’ rural development. LEADER 1 (1990-93) had a budget of some \$400m and supported 400 local groups in the priority Objective 1,5b regions of the EU. LEADER II (1994-2000) had a budget of \$1,600m and supported about 2,000 Local Action Groups. LEADER + is the new programme for 2001-06 and it has a budget of \$2.2bn.

At the European level there have been some conceptual advances towards monitoring territorial rural development within the context of sustainable development. In 1997, Eurostat published “Agriculture, Environment, Rural Development: Facts and Figures” that highlighted the linkages among the three elements, and the data currently available at the European level. A recent Commission working document has placed social and economic rural development indicators within a multi-dimensional sustainability framework (EC, 2001). Nevertheless, consistent EU time series data on many important economic and social indicators remain woefully inadequate at NUTS III or lower spatial levels<sup>11</sup>.

### ***Identification of Themes Relevant to Rural Development***

Our concern within the PAIS and DORA projects was mainly with the social and economic dimensions of ‘sustainable development’ of rural territories at NUTS III or lower levels. The growing emphasis on sustainable development as an over-arching goal of policy and its conceptualisation as an economic, social, and environmental framework following the Brundtland report, arises from the Treaty of Union (1992), the Treaty of Amsterdam (1999) and the Treaty of Nice (2001). Developing indicators for sustainable development in general takes us beyond ecological considerations towards economic performance and social equity, recognising the interdependencies of these factors.

In 1996, the OECD Territorial Development Service proposed four main development concerns relevant to rural areas (see Figure 1).

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<sup>11</sup> NUTS= Nomenclature of Territorial Units for Statistical purposes in the EU. NUTS I = national level, NUTS II = large regions; NUTS III = small regions, counties; NUTS IV = electoral wards; NUTS V= communes, parishes.

Figure 1: OECD Set of Basic Indicators by Four Main Development Concerns

<b>Population and Migration</b>	<b>Social well-being and equity</b>
Density	Income
Change	Housing
Structure	Education
Households	Health
Communities	Safety
<b>Economic Structure and Performance</b>	<b>Environment and Sustainability</b>
Labour force	Topography and Climate
Employment	Land Use Changes
Sectoral Shares	Habitats and Species
Productivity	Soils and Water
Investment	Air quality

Source: OECD (1996)

Within the rural development theme of PAIS, our first task was to develop a clear categorisation within the meta-databank, and also to reflect the issues that are, today, considered important to rural areas (see Figure 2). This drew on the OECD and other recent work, and our meta-categories or themes were:

- Quality of Life and Social Well-Being;
- Economic structure and performance;
- Demographics.

Although it is recognised that environmental quality is a key policy concern in rural areas, these concerns are addressed primarily through conservation, land use planning, agricultural policy instruments, and environmental regulation. More specifically, in rural development policies, environmental issues relate primarily to agricultural land use management and practices, which subsequently affect the landscape and its terrain, water and air quality. As such, the study of the indicators used for environmental quality assessment has been left primarily to the domain of landscape and agricultural indicators in the PAIS project.

**Figure 2: PAIS: Selected Key Rural Development Issues**

<b>1. Quality of life and social well-being</b>	
	Environmental features, service availability (health, education, local government), housing, safety, income and deprivation
<b>2. Economic structure and performance</b>	
<i>General</i>	Sectoral shares, enterprise, investment, labour force attributes, performance and competitiveness, business infrastructure, single industry dependence.
<i>Primary sector activity</i>	Multifunctionality of agriculture, diversification and productivity, financial resources.
<i>Tourism sector activity</i>	Physical features of consumption, physical features of supply, employment features and other monetary features
<b>3. Demographics</b>	
	Population density, change and structures, commuting patterns, migration patterns, cultural issues.

The exceptions are: indicators pertaining to the natural and person-made amenities created with regards to tourism and recreation; amenities which help to attract business activity and in-migration (such as natural amenities index); environmental pollutants that affect human health; and, the production from renewable and non-renewable resources (agricultural output and renewable energy). Because of their socio-economic nature, these indicators are considered under the themes of social well-being and economic structure and performance.

It is useful to distinguish between indicators that *measure* ‘performance’ along a number of dimensions, and indicators that may help local, regional, and national policy makers to *account for* relatively good, or poor, performance.

In the DORA project we found the following to be among the more ‘robust’<sup>12</sup> measures of relative economic performance at NUTS III or lower levels:

- Population change over time
- Net migration flows
- New enterprise start-ups
- Employment rate--employed & self-employed as a share of the working-age population
- Growth of employment (including self employment) over time
- Levels of education and training in the labour force
- Tourism accommodation occupancy rates

Indicators that help to ‘explain’ relatively good or poor economic performance are more difficult, since both tangible and less tangible factors are involved, as well as the interaction among factors<sup>13</sup>. What is important in one rural area, and the nature of the interaction between different factors, is not necessarily the same as those in another rural area. There is therefore a limited amount that can be *explained* at EU or national levels. However, the following were found to be generally indicative or at least providing clues:

**1. Shift-share analysis of employment.** This isolates national and sectoral factors from local factors in employment change. In the DORA project we found that relatively well-performing rural areas had consistently positive local factors when compared with less well-performing rural areas. In turn, this gives us an indication of the extent to which local actors are making the best of the circumstances they face.

**2. Performance in the new rural economy sectors.** This was closely related to the first, and refers to the extent to which rural localities have been able to replace declining employment in more ‘traditional’ rural sectors. Very often, in the rural areas we looked at, ‘new rural economy’

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<sup>12</sup> Robust here defined as meaning that they consistently supported our categorization – and interviewees’ perceptions – of well-performing and less-well-performing local economies.

<sup>13</sup> The DORA project examined these in some detail, and explicitly identified the important local influences of institutional performance, culture and community, and quality of life on more tangible factors such as natural resources, human resources, infrastructure, investment, and economic structures. See Bryden et al (2001) and Bryden & Hart (2003f).

sectors refer to a combination of activities around tourism, recreation, value-added and niche markets, and ICT-based services.

**3. Net migration flows.** Links with both employment creation and quality of jobs, and quality of life factors, typically in some combination. Our data on the detailed nature of inward and outward migration flows is limited, but in at least some cases it seems that more successful areas were able to attract working age families back to the areas from which they had earlier migrated, as well as new migrants.

**4. Public sector employment trends.** The public sector, which in the EU includes public administration and defence, but also the typically growing sectors of health, social care, and education, often accounts for 30% or more of rural employment. Processes of privatisation, centralisation, and decentralisation, as well as fiscal equalisation policies at national and regional levels, typically affect these trends.

**5. Economic structures and enterprise formation.** Single industry and/or single sector dependence (including public sector dependence) can indicate some fundamental weaknesses in local economies, often linked with poor rates of new enterprise formation and innovation.

**6. Infrastructure and peripherality.** These are closely linked. Peripherality with respect to the main markets of the EU remains an important issue, and there have been several attempts to measure peripherality, usually based on gravity models (Keeble & Offord, 1986; Schurmann & Talaat, 2000). There is an interaction with the quality and nature of infrastructure provision, especially transport and communications infrastructure.

In the report on Phase I of the PAIS project we summarised the possible rural development indicators that we felt were feasible to generate at NUTS III level, and highlighted those that we felt should be prioritised for further research and development in Phase II of the project, which is expected to start in January 2003. The summary table is given in the Annexe to this paper.

## **Conclusions**

Both the reality and the perception of the issues that rural policy has to face in the EU and its constituent member States have changed markedly over the past 15 years or so. Appropriate indicators and related data to support these changes have lagged behind. Partly this is because confusion has persisted between sectoral (mainly agricultural) policies, and territorial development policies, these having very different goals and constituencies. Policymakers and interest groups have fuelled this confusion. Nevertheless, the tendencies are clear – Europe will continue to place a high priority on economic, social, and political cohesion issues that need a territorial and decentralised approach. This means new data and indicators that are both comparable across member States, regions, and localities and available at the lowest possible spatial level. This may sometimes seem like an unattainable goal, but the failure to address it remains a fundamental weakness in EU policymaking for rural areas.

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## Annexe: PAIS Phase 1: Some Key Rural Development Indicators

(Indicators highlighted in bold type are the proposed focus for further work in Phase II of the project)

Theme	Issue	Indicator name	Available from Eurostat	Available at NUTS III	No.
Population and Migration	Demography	Population density	✓	✓	1
		% population aged 16 or under	✓	✓	2
		% population aged 65 or over	✓	✓	3
		Infant mortality rate	✓	✓	4
	Population Change	Average annual population change	✓	✓	5
		<b>Regional net migration balance</b>	✓	partly	6
Social well-being	Service provision	Accessibility to public services	✗	✗	7 <sup>i</sup>
	Employment	% resident workforce working outside area	✗	✗	8
		<b>Rural employment rate</b>	✓	✓	9 <sup>ii</sup>
	Quality of employment	% low skilled and high skilled workers	✗	✗	10 <sup>iii</sup>
		% of part-time workers	✓	✓	11
		% of employees on short-term contract and long-term contracts	✗	✗	12
		<b>% workforce self-employed</b>	✗	✓	13
	Income	% of households in receipt of social payments	✗	✗	14
		Average earnings per capita	✗	✗	15
		Household disposable income	✗	✗	16
	Housing accessibility	No. of second homes	✗	✗	17
		Average house price deviation from national average	✗	✗	18
		Affordability gap <sup>iv</sup>	✗	✗	19
		Rate of transactions (house sales)	✗	✗	20
		% turnover in rented sector	✗	✗	21
Economic Structure & Performance (competitiveness)	Enterprise	Average no. of patents	✓	✗	22
		No. of patent applications	✓	✗	23
		R&D expenditure	✓	✗	24
		<b>New business formation rate</b>	✓	✗	25
		GVA per capita in manufacturing	✓	✓	26
		% GVA in high-technology sectors	✓	✗	27
	Human capital	No. of university students	✓	✗	28
		<b>Share of workforce with higher qualification</b>	✗	✗	29
	Business infrastructure	Supply of broadband services	✗	✗	30

Theme	Issue	Indicator name	Available from Eurostat	Available at NUTS III	No.
Economic Structure & Performance (diversification of rural economies)	Sectoral shares	Sectoral employment shares: high and low tech manufacturing	✗	✗	31
		<b>Sectoral employment shares: shift share analysis</b>	✗	✗	32
		% foreign owned companies	✗	✗	33
		% employment in foreign owned companies by sector (manufacturing and tradable services)	✗	✗	34
		<b>Enterprise size structure by employee numbers</b>	✓	✗	35
		Net revenue by enterprise sector	✓	✓	36
	Farm households	<b>% share of pluriactive farm households</b>	✓	✗	37
		% income from non-farming activities	✓	✗	38
		% income from off-farm activities	✓	✗	39
	Tourism & recreation	<b>No. of bedspaces per 1,000 inhabitants</b>	✓	✓	40
		No. employed in rural tourism accommodation providers	✓	✗	41
		<b>Accommodation occupancy rate</b>	✓	✗	42
		Share of rural enterprises in total tourism turnover	✗	✗	43
	Economic Structure & Performance (Addressing the primary sector)	Agriculture	Farm size distribution (area/output)	✓	✓
Total gross output			✓	✗	45
Gross value added			✓	✗	46
<b>Farm net value added per holding, hectare and AWU<sup>v</sup></b>			✓	✗	47
Farm business employment			✓	✓	48
Forestry		Employment (permanent/temporary)	✓	✗	49
		% area forested (on-farm/off-farm)	✓	✗	50
		Total gross output	✓	✗	50
		Total value added	✓	✗	51
		Value of total annual gross fellings	✓	✗	52
Fisheries, aquaculture & fish processing		Total gross output	✓	✗	53
		Total value added (% of GDP)	✓	✗	54
		Employment by home port	✓	✗	55
		Value of landings (by local registered boats)	✓	✗	56
		CFP Dependency Indicator <sup>vi</sup>	✗	✗	57

<sup>i</sup> Calculated in relation to rural development monitoring in Sweden and UK

<sup>ii</sup> The Labour Force Survey provides harmonised data but only available at NUTS II

<sup>iii</sup> This variable is also used as an indicator of social class, for example in the Carstairs Index of Social Deprivation (Scotland)

<sup>iv</sup> the affordability gap attempts to measure the proportion of the population with income levels that are insufficient to access housing. It uses information on average incomes and home ownership costs in an area to determine this proportion.

<sup>v</sup> Agricultural Work Unit

<sup>vi</sup> The Common Fisheries Policy (CFP). This indicator calculates the total value of landings of species regulated by the CFP. This indicator was used in an EU-wide study of fisheries dependency at regional (NUTS III) level. The study was supported by EC Directorate General for Fisheries (1999).