

Handbook of Territorial Diversity

Experiences from the ESPON Territorial Diversity project

Erik Gløersen and Alexandre Dubois



This leaflet synthesises the results of the ESPON TeDi project, a Targeted Analysis conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

This report does not necessarily reflect the opinion of the members of the Monitoring Committee.

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Foreword

ESPON TeDi is an applied and exploratory project addressing the issue of economic and social development in regions with geographic specificities such as mountainousness, insularity, demographic sparsity and high population density in peripheral regions. It is a targeted analysis based on an initial request from a group of stakeholders composed of:

- The Norwegian Ministry of Local Government and Regional Development (Lead Stakeholder),
- The Cyprus Ministry of the Interior, Department of Town Planning and Housing,
- The Finnish Ministry of Employment and Economy,
- The Malta Environment and Planning Authority,
- The Romanian Ministry for Development, Public Works and Housing,
- The Swedish Agency for Growth Policy Analysis,
- The Swiss Federal Office for Spatial Development,
- The North Sea Commission,
- Euromontana,
- The Icelandic Regional Development Institute Byggðastofnun.

The three latter stakeholders have had observer status in the project Steering Group.

Based on a series of case studies described in Section 5, the study explores the capacity of regions with geographic specificities to contribute to the achievement of objectives of balanced, sustainable growth in Europe. As such, it focuses on comparative advantages and development

potentials and on the policies that need to be implemented to trigger them. The complete project report can be downloaded from the ESPON website www.espon.eu.

The present Handbook of Territorial Diversity has been produced based on inputs and analyses from the ESPON TeDi Transnational Project Group (TPG):

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- Jacques Michelet and Frédéric Giraut (University of Geneva, Switzerland),
- Danut Gitan, Mioara Bocanici, Andrei Zvoristeanu, Ana Ildico Abrudean and Danut Ungureanu (CEFIDEC, Romania),
- Nicholas Konsolas, Emmanouil Christofakis, Dimitris Skouras and Nicholas Karachalis (Regional Development Institute of the Panteion University, Greece),
- Jana Farrugia, Gordon Cordina and Lino Briguglio (Islands Consulting Services, Malta)
- Grétar Thór Eythórsson (University of Akureyri, Iceland).

Julian Thorsteinson did the language editing of the handbook.

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Introduction

The present handbook deals with the social and economic development of areas characterised by geographic specificities, i.e. islands, mountain ranges and sparsely populated areas. Much of the debate on these Territorial Diversity or “TeDi” areas is limited to the identification of structural constraints and obstacles to development. However, our purpose is to introduce alternative approaches, focusing on their growth opportunities and on the policy measures that could help contribute to the full exploitation of their development potential.

The underlying hypothesis is that general principles of balanced economic and social development tend to be designed with mainstream territories in mind. Corresponding regulatory frameworks and incentives therefore often fail to deliver foreseen results in areas with small, specialised and peripheral local communities. It is particularly important to address this issue in a context of European integration and globalisation. The relative isolation that hampers the development of many geographically specific areas also helps to protect a range of local economic and social arrangements adapted to the particularities of each territory. Institutional integration, policies of deregulation and infrastructure improvements have weakened these protective barriers. While these changes create new opportunities of growth and development, they also imply that local communities are exposed to potentially destabilising influences. Measures targeting Territorial Diversity areas need to be designed to accompany these processes.

The objective is to ensure that all regions can contribute to the European objectives of sustain-

able economic, social and ecological development to the full extent of their possibilities. Although the tangible assets of a region (e.g. natural and cultural heritage, natural resources) are often well known, the strategies that would make it possible to fully exploit these territorial potentials often remain to be defined. The ESPON TeDi project has focused on analysing processes through which potential resources are not taken advantage of, in view of designing policy interventions that would target key obstacles and thereby have the maximum leverage.

Territorial development is a process of dialogue and exchange between actors in which their respective perceptions play a key role. Notions such as islands, mountains and demographic sparsity structure the perception of the European territory and contribute to shape individual identities. They therefore need to be approached as culturally constructed landscape categories, as well as concepts describing physical realities. It is in this double capacity that they can become useful instruments for the design of local development strategies and European territorial policies. Sections 2, 3 and 4 describe each of these notions, and propose different perspectives on their social and economic relevance.

Sections 6 to 11 explore the socio-economic and societal specificities of TeDi areas: Why are their economies specific? How could improved transport infrastructure contribute to their development? What is the role of knowledge intensive activities in their development? These are some of the questions addressed by the Handbook on the basis of evidence from the case study areas.

1. Territorial diversity: a challenge and an asset

A new approach focusing on “specificities” rather than “handicaps”

The European Union pays increasing attention to the specific economic and social development conditions of mountainous, insular and sparsely populated areas. Article 174 of the new European Treaty specifies that “*particular attention shall be paid to [...] regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions*” as part of the general ambition of “*reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions*”. To ensure that this ambition translates into concrete measures, Members of the European Parliament have set up a formal intergroup, known as the “Intergroup Mountain, Island and Sparsely Populated Regions” or “Intergroup Article 174”.

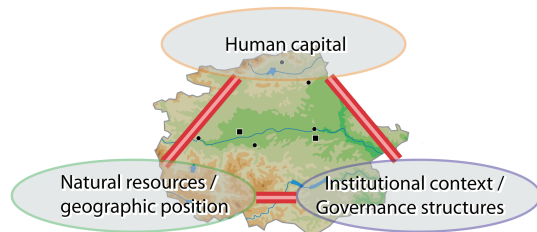
European states concerned by these issues are also actively seeking ways of promoting growth and development in all parts of Europe, irrespective of their geographic specificities. As part of the Action programme for the implementation of the Territorial Agenda, a document agreed upon by European Ministers of Urban Development and Territorial Cohesion in 2007, initiatives have been taken to “*maintain the diversity of the European territory*”. This diversity is considered as “a goal in itself”. It is argued that to meet this goal policies must focus on the comparative advantages of specific regions, support innovation and entrepreneurship, improve local business environments and facilitate accessibility.

This pro-active and positive stance is quite different from traditional approaches of territorial diversity that have focused on “handicaps” and “additional costs”, found for example in agricultural policies and some national regional policies. It is echoed in the European Commission’s Green Paper on Territorial Cohesion, which bears the subtitle “Turning territorial diversity into strength”. Its first sentences advocate a balanced and sustainable development in all parts of Europe: “*From the frozen tundra in the Arctic Circle to the tropical rainforests of Guyana, from the Alps to the Greek islands, from the global cities of London and Paris to small towns and villages dating back centuries, the EU harbours an incredibly rich territorial diversity. Territorial cohesion is about ensuring the harmonious development of all these places and about making sure that their citizens are able to make the most of inherent features of these territories.*”

A focus on development opportunities

This focus on opportunities does not imply that one belittles or neglects the major permanent natural handicaps these regions have to confront in their social and economic development. However, the focus of policies is no longer on merely maintaining activities in spite of these difficulties. Instead, the objective is to build on local assets so that competitive businesses can emerge. Additionally, policies must help in formulating a development model that is adapted to the specific social and ecological framework conditions. This implies that one may need to challenge prevailing economic

principles. Competition for example does not necessarily guarantee the cost-efficient delivery of services of general interest in areas where the demand is too small to justify the presence of multiple actors. Similarly, the existence of a “labour market” presupposes that workers may choose between different employers, which is not necessarily the case in mono-industrial towns. It is necessary to establish a more systematic body of knowledge on how economic principles adopted with “mainstream” territories in mind may not be suitable for the balanced and sustainable development of areas with geographic specificities.



The objective is to improve the growth potential of these regions and their perspectives of sustainable development, ensuring that they contribute to the achievement of the Europe 2020 objectives to the full extent of their possibilities. The focus is on identifying development opportunities, i.e. endogenous potentials that are not being fully exploited. There are probably as many reasons for the failure to take full advantage of potential resources as there are territories. One may however systematise the knowledge about these various situations by defining the territorial development opportunity as a way of improving the coherence between three key factors: local

natural resources, human capital and the institutional context or governance structures.

The territorial approach can make it easier to handle this complex three-variable equation, as it allows one to circumscribe the different elements more easily and to formulate economic, ecological and social ambitions within people’s daily life environment. Furthermore, insofar as the territory is part of the identity of individual actors, they may be more easily mobilised around a territorially identified project. However, this does not imply that one should consider territories in isolation. On the contrary, development opportunities often emerge by creating new types of interaction between neighbouring territories: mountain areas need to be considered in interaction with their piedmont and islands in relation to regions they are connected to by sea or air. A risk with the focus on endogenous potentials is that one singles out individual territories and ceases to consider the potential for functional integration. Territorial cooperation is therefore a component of policies targeting geographically specific areas.

Why should Europe get involved?

This cooperation can be cross-border, which is one of the reasons it can be relevant to design policies targeting territorial diversity at the European level. But the main argument for a European involvement is that the regulatory framework based on principles of “free and undistorted competition” that would need to be adapted to the situation of geographically specific areas is largely defined and enforced at the European level.

2. Mountain areas

It is estimated that mountain areas cover 40% of Europe and are home to 20% of its population (Nordregio, 2004). Mountain areas can be found in 25 out of the 31 European countries that participate in the ESPON programme.

Mountain areas not only separate river basins. They also in many cases function as borders between regions and countries. Territorial cooperation is therefore of key importance for their development. This also justifies the European involvement in mountain areas.

Mountain agriculture is a well-established topic of European policy making. The aid scheme to farmers in Less Favoured Areas (LFA) has included special provisions for mountain areas

since 1975, based on specific handicaps due to altitude (climate) and topography.

Many mountain regions, however, possess major economic development assets: access to hydro-electricity has generated substantial industrial development in the 20th century; tourism is an important source of income, especially in areas where both winter and summer are high seasons. Increasingly, the difficulty of developing intensive, highly mechanised forms of agriculture is used as an argument to promote the lower volume production of high quality foodstuffs. This is one example of how handicaps can be turned into assets.

What is a mountain area?

High altitudes are not a sufficient criterion to identify mountain areas, as some mountains go down to sea level, typically examples being fjords and Mediterranean dry mountains. The European delimitation of mountain areas therefore also takes into account the criteria of slope and of local variations in altitude (or "ruggedness") (Nordregio *et al.*, 2004). Even though quantitative criteria are used, these measures and thresholds have nevertheless been defined to match as closely as possible the commonly held perceptions of "mountainousness" in European countries. Mountains are, therefore, a constructed mental category of landscape just as much as a physical reality.

Any European delimitation of mountain area is nonetheless a compromise between different national perceptions. Generally, the more mountainous a country is, the more restrictive the perception

of mountains will be: Switzerland will tend to have a more restrictive understanding of mountains than e.g. Poland. There are, however, exceptions: Belgium, for example, does not have a national notion of mountain areas, and it therefore came as a surprise to some stakeholders that one would identify parts of the Ardennes plateau as mountainous in a European perspective (Philippe de Boe *et al.*, 2005). This exemplifies how the notion of mountains is a relative and cultural one.

The landscape category of "mountains" can furthermore be useful not only for regional policy, but also for other types of public intervention, e.g. concerning environmental or agricultural issues. Different understandings of mountains may however be required for each of these purposes. Mountain delineations are therefore far from being unique and definitive.

Two types of approaches:

Massifs and mountainous regions

Within territorial policy, two approaches of mountain areas can be identified. The notion of “*massif*” is inspired by French territorial development policies (“*aménagement du territoire*”) that single out mountain territories and implement targeted measures within these areas. These *massifs* can range over multiple regions and are delineated on the municipal scale. The objective is to construct a coherent strategy for an entire mountain area across regions and countries.

The alternative approach considers “mountainous regions”. This perspective, promoted by the European Commission (2008, 2009), looks at the proportion of mountain area or mountain dwellers within each region. The rationale is that a high degree of “mountainousness” would affect regional development processes. The objective is to integrate mountain policies with other regional policy instruments, if and when there is evidence to support the need for such interventions.

There may be a need to combine these complementary perspectives, both for the understanding of mountain-related territorial development issues and for the implementation of measures. A focus on “mountainous regions” may be particularly useful when considering new potential forms of interaction between mountains and piedmont/lowland areas. The “massif” approach helps in exploring the unique characteristics of mountain areas and ways of promoting growth and development alliances within them. *Massifs* also correspond to generally accepted delimitations of mountain areas, around which one may mobilise local actors more easily.

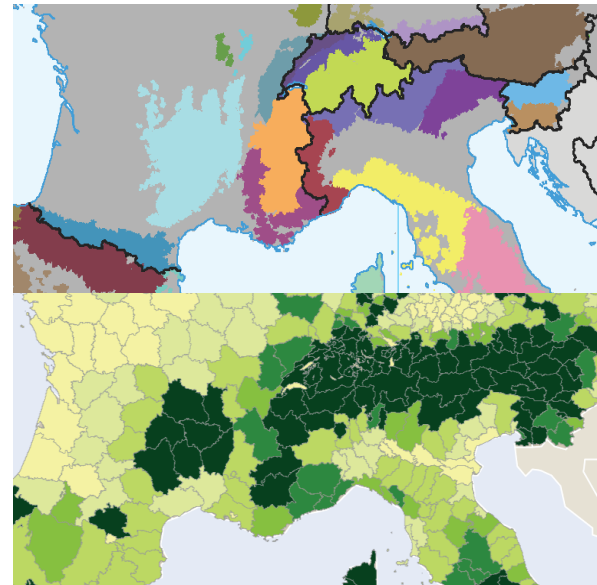


Figure 1: Massifs (top) and Mountainous Regions (bottom): two ways of approaching mountain areas

In the bottom map, dark green colours correspond to high proportions of mountain dwellers in the regional population.

Contrasted territories

Because of altitudinal variations in landscape, vegetation and climate, combined with topographic obstacles to flows and exchanges, mountain areas are often characterised by strong local gradients in terms of social and economic development. Functional integration and territorial cooperation between neighbouring areas can therefore be key instruments for the development of mountain areas.

3. Islands

Europe's islands have been estimated to host 15 million inhabitants, i.e. about 3% of Europe's population (Monfort, 2009). This calculation only includes insular regions, excluding most of Europe's numerous coastal islands. While the population that is thus excluded is small, the question is whether it is of strategic interest to maintain a population in these territories, which presupposes policies to promote an economically, socially and ecologically sustainable development of the concerned communities.

The territories that can be described as "islands" are extremely diverse. First, they range from minute islets with few or no inhabitants to Sicily and Ireland and their populations of 5 and 6 million inhabitants, respectively. Second, some

islands are sovereign states (e.g. Malta, Cyprus and Iceland), while others can be regions, municipalities or even parts of municipalities. The economic framework conditions and the capacity of island actors to design and implement a development strategy vary accordingly.

The shared feature of all islands is that they are dependent on air or sea transport for exports, passenger traffic and for the provision of goods. This relative isolation is, however, one of the reasons for which many islands are attractive tourist destinations and can offer favourable living conditions. A key issue is, therefore, to encourage the types of accessibility and connectivity improvements needed for their economic development while preserving their assets.

Typologies of islands

The typologies of islands defined by the geographer André-Louis Sanguin (2007) provides some useful categories for the understanding of "islands" as an object of territorial policy. Sanguin distinguishes three types of internal structures of islands or archipelagos. "Self centred islands" organised around one main island, e.g. Malta and Madeira, are distinguished from islands that are dominated by a capital city, but that also have significant secondary cities or towns. Sardinia, Corsica the Balearic and Canary Islands, the Azores and the Greek islands of the Aegean Sea are mentioned as examples of this latter category.

In many of these cases, one observes so-called "double insularity", i.e. islands that are situated off

the coast of another, larger, island. Double insularity creates additional development challenges and costs, due to the lower access to key services and transport infrastructure. Double insularity is however not considered as a specific challenge in the Green Paper on Territorial Cohesion. Among the ESPON TeDi case study areas, the main example is the Maltese island of Gozo, with a population of 31,000 compared to over 380,000 inhabitants on the island of Malta. Differences in social and economic dynamics and development levels between Malta and Gozo constitute a main territorial development concern for Malta.

The large polycentric islands are another type of islands identified by Sanguin. In these islands,

multiple competing nodes have clearly differentiated functions. Sicily belongs to this category.

Sanguin also highlights the specific challenges of isolated peripheral islands that are typically situated on the outskirts of the European continent. The Orkneys, the Shetlands, Linosa and Lampedusa are mentioned as examples of such islands. One could however argue that Malta or Iceland could be mentioned in the same group.

One could add a sixth category to this classification, namely ultraperipheral islands. Six out of Europe's seven ultra-peripheral regions are islands: Guadeloupe and Martinique in the Caribbean, Réunion in the Indian Ocean, the Azores, Madeira and the Canary Islands in the Atlantic Ocean. This is a highly heterogeneous group in terms of geographic contexts, economic profiles and development challenges.

A range of factors of vulnerability

Islands have some permanent features that make them more exposed to external shocks than other economies (Cordina et al., 2007). Among the factors of vulnerability, one can first mention economic openness, i.e. the relative importance of exports and imports in the overall economy. High openness implies a lack of circularity in the economy. The exchange of goods and services among the inhabitants of an island tend to be relatively less developed than in other regions and there is a greater dependence on external trade in final and intermediary consumption. A high dependence on a narrow range of exports is a second factor of vulnerability. In order to be competitive, small island communities need to focus on a limited number of sectors.

However, this implies that cyclical fluctuations within these key sectors can have a large social impact. These exports include the tourism industry and business services such as finance and insurance. Finally, the reduced scope of local production leads to a higher dependence on strategic imports, e.g. energy and foodstuffs. In this respect, the degree of vulnerability depends on the stability of commercial relationships and the reliability of transports.

Additionally, peripherality is also mentioned as a factor of insular vulnerability. However, while high transportation costs and long distances to main markets are recurring issues in all debates on their social and economic development, the key challenges are often rather about low connectivity and reliability. Distance has indeed not prevented South-East Asian producers from exporting goods to Europe and North-America. The challenge is to achieve cost effective means of operating regular and reliable connections to islands with a low population and relatively limited economic activity. In this regard, the regulatory framework plays a key role.

Finally, among the factors of vulnerability, one can mention the difficulty of establishing a system of checks and balance in governance systems. Insofar as islands are small and relatively isolated, the networks of professional and political interaction and relations of kinship tend to be more closely knit than in other regions. This can be an asset in terms of social cohesion, but may also require specific institutional arrangements to preserve plurality and encourage new initiatives.

4. Sparsely populated areas

Demographic sparsity creates specific conditions for economic and social development mainly because individual towns and settlements tend to be situated far away from each other. This implies that individual labour market areas are small and specialised. It also reduces the scope of available public and private services. Finally, as ports, airports and railways can be difficult to operate cost-effectively, connectivity will be lower.

The per-inhabitant ecological footprint is higher in these regions than in more densely populated areas. Furthermore, delivery of public and private services of general interest costs more. The natural resources found in sparsely populated areas can, however, justify maintaining a human presence. In North Calotte, for example,

one finds major forestry, mining and fishery resources. Furthermore, the Barents Sea contains large unexploited oil and gas fields.

If one considers that such major resources cannot be left unexploited, the social and ecological conditions under which this exploitation is conducted are a legitimate concern. Balanced local communities do not emerge spontaneously in mono-industrial communities beyond commuting range from the nearest town or city. The lack of female employment opportunities and the narrow range of options available to young people are examples of the obstacles to be overcome. The question is how to create perspectives of sustainable development in spite of these limitations.

The challenge of demographic polarisation

Demographic sparsity mainly became an issue of European policy-making with the EU accession negotiations of Finland, Norway and Sweden. These allowed large NUTS 2 regions with a population density of less than eight inhabitants per km² to benefit from Structural Funds support. Additionally, national and regional investment aid, which is generally forbidden under European competition rules, is allowed in NUTS 2 regions with a population density of less than 12.5 inhabitants per km². In both cases, the delineation of sparse areas can be extended to “*adjacent and contiguous smaller areas fulfilling the same population density criterion*”. The regulation has not taken into account the fact that the

way in which borders are drawn has as much effect on population densities as settlement patterns. Theoretically, one could therefore construct sparsely populated areas in any part of Europe by delineating regions that exclude the main settlements.

In view of compensating for this weakness, the study *Northern Sparsely Populated Areas in the European Union and in Norway* (Gløersen *et al.*, 2006) proposed another approach to sparsity. From each point in Europe, it calculated the total population to be found within a 50 km radius (considering this as a proxy for the maximum generally accepted commuting distance). Areas where this total population is below 100,000

inhabitants were then defined as sparsely populated; regions with more than 75% sparsely populated areas were defined as sparse. There are two main advantages with this method. First, it is less sensitive to changes in regional boundaries. Second, it makes it easier to understand the issues of social and economic development in sparsely populated areas. These are not related to a low ratio of inhabitants per land unit, as suggested by measures of population density. The challenge is rather that the total number of inhabitants of commuting areas and customer catchment areas is too low to establish a well-functioning labour market and to operate public and private services in a cost-effective way.

The Green Paper on territorial cohesion, however, delineates sparsely populated areas on the basis of population densities of less than 12.5 inh./km² in NUTS 3 regions. On this basis, it identifies sparsely populated regions in northern Sweden, Finland and Scotland, inner Spain (Cuenca, Soria, Teruel), Greece (Evrytania) and France (Guyana). Iceland outside Reykjavik and eight Norwegian counties also qualify under this criterion. Applying this method to the ESPON study area, one finds that just over 4 million people live in sparsely populated regions.

The challenges of regions identified as sparse

However, this delineation includes regions for which sparsity is a geographic feature of only secondary importance. The sparse inland regions of Greece and Spain are primarily mountainous. French Guyana is first and foremost an outermost region. Sparsity is therefore the main

geographic specificity only of regions of Iceland, Fennoscandinavia and Scotland. Even in these areas, it may be associated with other features such as insularity and mountainousness.

The negative net migration rates in many of the small and remote municipalities of these sparse regions should not generally be interpreted as proof that these areas are unattractive as living environments. This population decline is often the result of minor imbalances in considerably larger in- and out-flows, and could be inversed through relatively small changes in the numbers of migrants, e.g. among returning young retirees or foreigners seeking an alternative lifestyle.

An important specificity of Nordic sparsely populated areas is that the lack of available workforce with adequate competencies is often a major limitation for economic development. The priority is therefore to improve the demographic dynamism of these regions.

However, it has to be acknowledged that the depopulation may in some areas correspond to a necessary adaptation to a changing economic and social context. The difficulty lies in the choice of methods to distinguish settlements to be maintained from those that are not viable. A reliance on market mechanisms alone may lead to an underestimation of the long term perspective, e.g. future needs in terms of natural resources and transformations related to climate change. However, it can be politically difficult to decide that certain local communities should be closed down. This makes it all the more challenging to accompany the decline of certain communities.

5. Case study areas in brief

North Calotte

Total population (2007): 900,000 inh.
 Area: 238,479 km²
 Population density: 3.8 inh./km²

Main urban centres (FUA, 2001):
 Tromsø (63,000), Luleå-Piteå-Boden (150,000), Rovaniemi (58,000)

Development Opportunities

- + Cross-border cooperation area between the Nordic countries and NW Russia,
- + Increasing the value-added of traditional industries, e.g. fisheries, mining, forestry, energy,
- + Promoting the high quality natural living environment,
- + Improving the functional integration between local economies through 'regional enlargement' initiatives.

Main Challenges

- Processing industries are weakly developed,
- Demographic polarisation: constant population decline in the small and peripheral municipalities, with gender imbalances (proportionally fewer women) and ageing,
- Lack of available workforce with appropriate competencies.

Mountainous: partly

Insular: partly

Settlement pattern: very sparse



Valais (Switzerland)

Total population (2007): 300,000 inh.
 Area: 5,225 km²
 Population density: 56.4 inh./km²

Main urban centres (FUA, 2001):
 Sion (48,000 inh.)

Development Opportunities

- + Development of renewable energy production as part of the EU "Green Growth" strategy,
- + Fully exploiting the cultural & geographical cross-roads position in Europe,
- + Attracting new residents by branding the assets of the region in terms of quality of life: climate, tax system, leisure opportunities etc.

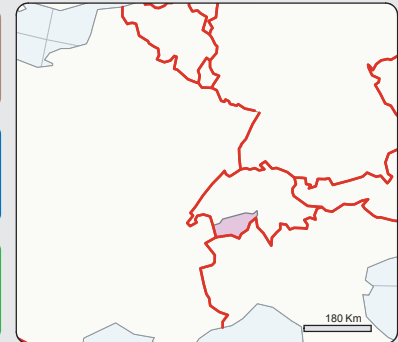
Main Challenges

- Lack of critical mass as a result of topography and language barriers,
- Predominance of economic sectors with low added-value,
- Lack of qualified workplaces leading to selective out-migration of young graduates,
- Reduced service availability in mountain communities as a consequence of deregulation.

Mountainous: exclusively

Insular: no

Settlement pattern: sparse - concentrated



Jura (Switzerland)

Total population (2007): 70,000 inh.
 Area: 839 km²
 Population density: 83.4 inh./km²

Main urban centres (FUA, 2001):
 Delémont (20,000 inh.)

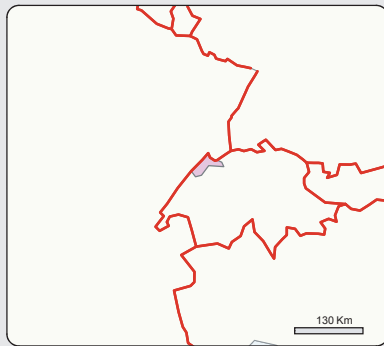
Development Opportunities

- + Diffusion effects from Basel Metropolis
- + Available land at attractive prices
- + Cross-border commuting can be further developed
- + Recently created region, with a potentially better adaptation capacity
- + Strong industrial network to develop added-value activities

Main Challenges

- No major urban centre, dependence on diffusion effects from external urban regions
- Overcoming the proclivity to be inward-looking and the historical mistrust of neighbouring German-speaking areas
- Rapidly ageing and declining population / brain drain

- Mountainous: largely
- Insular: no
- Settlement pattern: sparse - dispersed



Gozo (Malta)

Total population (2007): 31,000 inh.
 Area: 67 km²
 Population density: 462.7 inh./km²

Main urban centres in proximity (FUA, 2001):
 Valletta (389 000 inh.)*

Development Opportunities

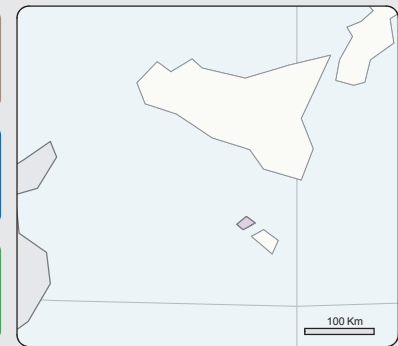
- + Developing the profile of Gozo with the eco-island label
- + Developing the entrepreneurial capacity of the island
- + Fully exploiting the assets of the island in terms of quality of life
- + Promoting local agricultural production through joint 'Gozo' labelling and agro-tourism

Main Challenges

- Inverting negative net migration flows among the working age population
- Overcoming problems of smallness, peripherality and double insularity
- Improving the governance structure, facilitating the emergence of regional development strategies that are adapted to local conditions and well embedded in the local communities.

* The Valletta Functional Urban Area includes the entire island of Malta

- Mountainous: no
- Insular: exclusively
- Settlement pattern: sparse - concentrated



Alba (Romania)

Total population (2007): 370,000 inh.
 Area: 6,242 km²
 Population density: 59.3 inh./km²

Main urban centres (FUA, 2001):
 Alba Iulia (67,000 inh.)

Development Opportunities

- + High quality agricultural production in small mountain communities,
- + Local handicraft production,
- + Development of agro-tourism,
- + Develop the potential of some mountain areas as winter and summer tourism destinations, e.g. in Arieseni,
- + Existence of LEADER-like networks of rural stakeholders

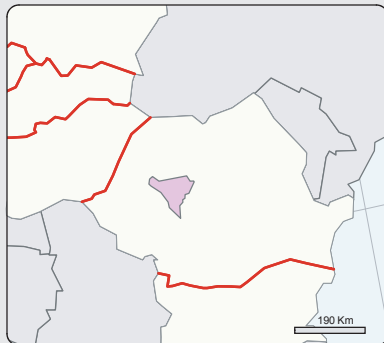
Main Challenges

- Improving access to basic services, especially in rural areas,
- Difficult conversion processes in mono-industrial towns with high unemployment,
- Limited external investment,
- Environmental issues linked to waste management and pollution in the Apuseni Mountains.

Mountainous:
partly

Insular:
no

Settlement
pattern:
sparse -
dispersed



Suceava (Romania)

Total population (2009): 710,000 inh.
 Area: 8,553 km²
 Population density: 83.0 inh./km²

Main urban centres (FUA, 2001):
 Suceava (107,000 inh.)

Development Opportunities

- + Extensive natural and cultural heritage to capitalise upon,
- + Further economic potential based on products from agriculture, forestry, picking and hunting,
- + Well-developed, efficient rural school system,
- + Existence of LEADER-like networks of rural stakeholders,
- + Potential European interface to Ukraine and Moldova.

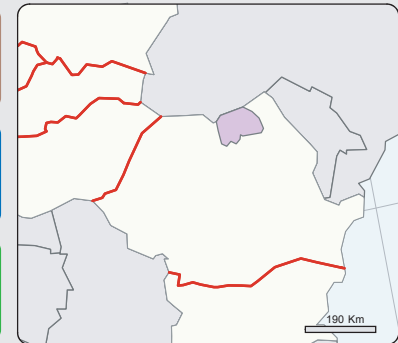
Main Challenges

- need for improvement to the transport infrastructure, especially rural secondary road system,
- Many small agricultural households,
- Difficult conversion from subsistence farming to commercial agriculture,
- Obsolete agricultural production facilities,
- Unstable legal and fiscal environment.

Mountainous:
partly

Insular:
no

Settlement
pattern:
sparse -
dispersed



Marathasa & Tylliria (Cyprus)

Total population (2007): 4,200 inh.
 Area: 468 km²
 Population density: 8.9 inh./km²

Main neighbouring urban centres (FUA, 2001):
 Limassol (72,000 inh.), Paphos (48,000 inh.)

Development Opportunities

Marathasa

- + Tourism activities, rich natural and cultural capital,
- + Traditional agriculture as an asset, high quality production,
- + High quality environment, secondary residences.

Tylliria

- + Opening of Limnitis check point, improved accessibility,
- + Closer cooperation along coastal strip, with some robust growth communities,
- + Early-season agricultural production, organic produce,
- + Alternative tourism: wellness and religion.

Main Challenges

Marathasa

- Low population levels, severe ageing,
- relative isolation, limited access to services and cultural leisure,
- Lack of incentives to promote private investments.

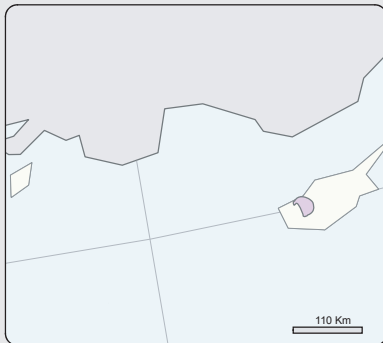
Tylliria

- Geographic isolation and low accessibility,
- Insufficient wages and low social status in agriculture, low level of processing activities ,
- Crisis in a number of traditional activities (e.g. charcoal),
- Low quality tourism infrastructure.

Mountainous:
largely

Insular:
exclusively

Settlement
pattern:
very sparse



Northern Iceland

Total population (2007): 36,000 inh.
 Area: 34,705 km²
 Population density: 1.0 inh./km²

Main urban centres:
 Akureyri (20,000 inh.)

Development Opportunities

- + Expansion of the existing service and educational sector in and around Akureyri,

- + Maintaining the international competitiveness of the fishing industry,

- + Better integration to the capital region thanks to improvement of road infrastructure.

Main Challenges

- Isolation due to winter weather conditions,

- Demographic decline due to out-migration and lower birth rates,

- Lack of energy resources needed for the development of heavy industries,

- Poor standard internet connections and accessibility in sparsely populated areas.

Mountainous:
partly

Insular:
exclusively

Settlement
pattern:
very sparse



6. Regenerating the human capital

Human resources are an important part of a region's territorial assets. The evolution of the human capital, i.e. general population and its components, has a direct impact on the capacity of the labour-market to develop. An inadequate labour force resulting from the territorial, gender and generational imbalances in demographic trends can prevent some labour-markets from fully exploiting their development potentials.

The case study regions display a wide variety of situations with regard to the evolution of their human resources. Rather than focusing on

overall population trends, territorial policy needs to consider the internal polarisation towards a few regional centres, the thinning-out of the most sparsely populated areas and the selective out-migration of certain categories of the population, e.g. young female adults. This is required in order to take up the challenge of achieving the necessary balance in the regions between enhanced economic efficiency on the one hand and competitiveness and strengthened social cohesion on the other.

Shrinking or growing regions?

The geographic specificity of a region does not explain its short-term or long-term demographic trends. The eight case studies of the TeDi project display a wide diversity of overall regional development trends. Some regions or countries, such as Cyprus, Malta or Iceland have witnessed strong positive population change since the turn of the century. For North Calotte, the total population has decreased slightly in most of its areas, with the exception of Finnish Lapland where it has dropped rapidly, and Norwegian Troms, where it has increased slightly. As for the the two Romanian TeDi regions considered, Suceava and Alba, the changes of population over the same period have only been modest, although most of the country except the capital region is depopulating.

However, the underlying territorial and social dynamics that explain these overall trends are the main concern for territorial policy. Is the trend uniform? If not, how is it territorially differentiated? How many people are witnessing the population in

their living environment dwindling away, or on the contrary, exploding? What components of the regional population, according to gender, age categories and occupational situation (student, employed, retired etc.), are the most affected?

Demographic polarisation

In the long run, the territorial distribution of the population, and with it the labour market, is altered. Most of our case study regions witness internal polarisation of their population. This polarising trend impacts the capacity of thinning-out localities to access basic services.

For instance, the increase in total population in the Troms region (Norway) is mainly due to the population growth occurring in the main regional centre, the city of Tromsø, while almost all other municipalities have a total decrease of population or, at best, stagnation during the period. Similarly, the city of Akureyri is the magnet for population growth in north-eastern Iceland, while the population of other

municipalities is either stable or decreasing. The two Swiss case study regions, Valais and Jura, also show a territorial imbalance with regard to population change between municipalities. Here, the polarisation is between different parts of the regions, and not the urban nodes and the rest of the territory. On the Maltese islands, the spatial disparities in population change are almost reversed: the largest centres on both Gozo (Victoria) and Malta (Valletta) have lost population to the benefit of surrounding or more distant localities.

Migration patterns are the decisive factor behind these trends. None of the TeDi regions are subject to a massive out-migration. With the exception of the Maltese case, the larger population centres tend to attract population. The contrast between the main cities and the countryside is obvious in the case of Valais (Switzerland), Alba and Suceava (Romania), as well as in northern Iceland. In Malta, the higher growth of peripheral areas compared to urban centres such as Valletta and Victoria, is essentially due to demographic pressure on land-use, leading to suburbanisation.

Imbalanced labour markets

In general, the proportion of working age population (20-65 years) in the total population is lower than average in TeDi areas. Consequently, the age dependency ratio is higher in the localities of TeDi regions than for the rest of Europe. In the Swiss region of Jura and especially in Iceland, many communities display high proportions of children, as compared to the European average. This can be considered as an asset for the sustainable social development of the region, insofar as the regions manage to attract these cohorts when they become

adult. On the contrary, many communities in North Calotte, Alba and Marathasa & Tylliria are faced with a more or less marked overrepresentation of the elderly. Local economies need to find ways to use this feature as a development potential: despite their non-participation to the labour market, elderly people can bring in a stable income in countries with well developed pension systems and this demographic may bolster the need for skilled, advanced health-care service providers.

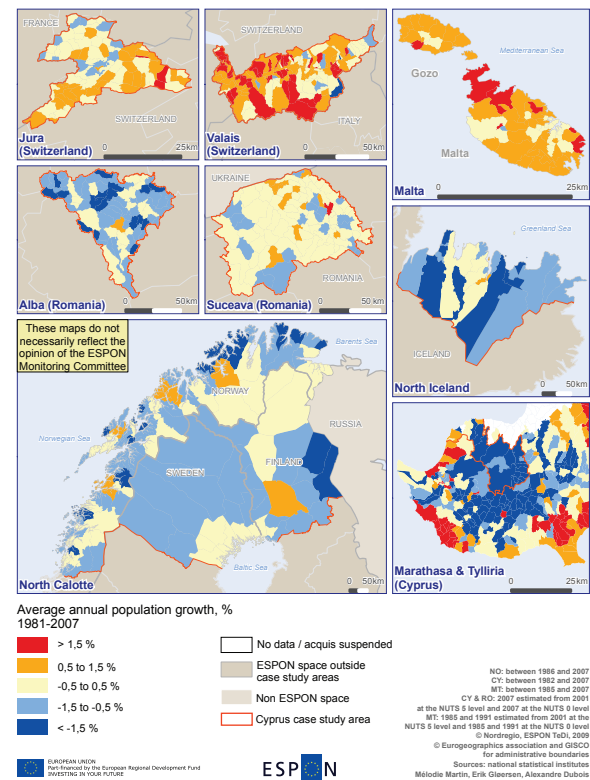


Figure 2: Intraregional demographic polarisation: the main challenge of most TeDi areas

7. Profiling the regional economies

In order to support development opportunities efficiently, policy initiatives need to take into consideration the existing state of local labour markets and economies and identify the strengths of each regional economy.

The specialisation of local economies can be identified by looking at the relative importance of industries or sectors, calculated on the basis of the distribution of employed persons per municipality. The eight case studies that have been considered show extreme diversity in

terms of economic profiles, which makes it difficult to envisage any transversal and cross-cutting analysis of TeDi regions. A more promising perspective is to focus on local 'hotspots', i.e. areas where a local specialisation has led to growth dynamics or trends towards a socially, economically and ecologically more sustainable development. Rather than being approached as "motors" in the overall development of TeDi regions, they are therefore to be considered as examples of good practice.

A diversity of economic profiles

The regional and local economic profiles of the TeDi study regions are very diverse. The relative importance of the primary, secondary and tertiary economic activities differs widely both between and within TeDi regions.

North Calotte and northern Iceland's municipalities typically have a large proportion of tertiary activities, mainly due to the larger share of people employed in public service compared to other case study areas. In spite of their low number of employees, the primary and secondary sectors justify their presence in many localities by generating export revenue. This is typically the case for fisheries along the northern Norwegian coast and in northern Iceland and for mining in the inland of northernmost Sweden.

The majority of municipalities in Marathasa and Tylliria have an agricultural type of economic profile, comparable to that of most inland municipalities of Cyprus. In a few localities, the over-representation of

tourism is, however, the main feature. Suceava and Alba have relatively similar patterns, with agriculture, manufacturing and mining as the most over-represented sectors. Suceava, however, has a more distinct agricultural profile, while manufacturing activities employ a relatively larger proportion of people in Alba.

The two mountainous Swiss regions of Valais and Jura have quite contrasting local economies. In the canton of Jura, several localities have a strong manufacturing sector, linked to the watch-making industry or to agriculture, but no locality where the service sector is overrepresented compared to the general profile of the case study areas. The situation of the Valais is almost opposite: the economies of the more mountainous municipalities are dominated by service activities. This is essentially due to the importance of the tourism industry. Manufacturing and agriculture are only over-represented in a limited number of municipalities.

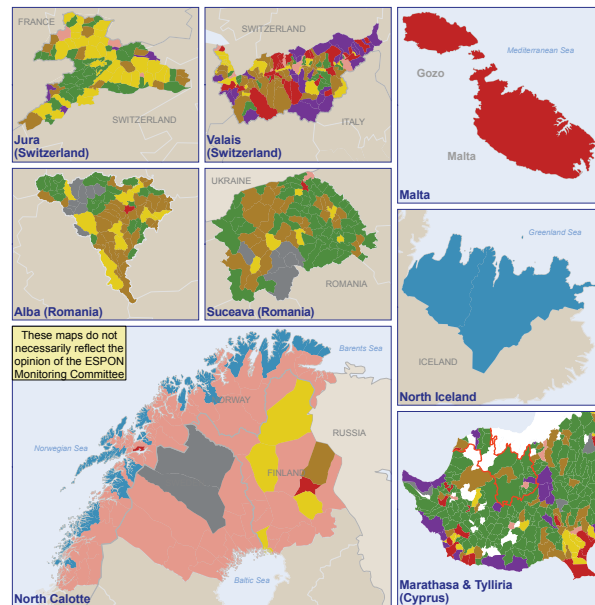
The activity profiles of both Malta and Gozo are comparable in a European perspective, with an over-representation of trade functions and business services. Overall, one observes a remarkable diversity of economic profiles in TeDi areas.

Specialisation: a double-edged sword

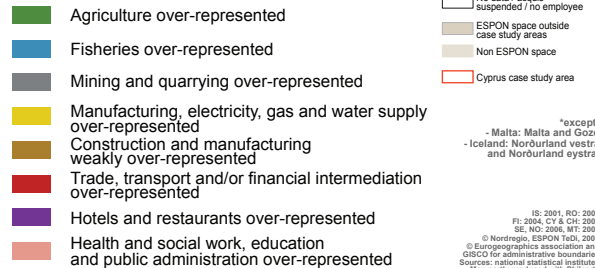
Increased specialisation of local economies can be part of the development strategy of TeDi areas, as a factor of improved competitiveness. Specialisation is, however, also a factor of vulnerability when local communities become dependent on a limited range of exports. Development strategies to improve the competitiveness while reducing the vulnerability generally seek to identify “niche” activities, ideally with reduced competition from other regions and for which the given locality has a competitive advantage. A major challenge in such niche-based development is to reduce the mismatch on the labour market between the demands of a specific type of labour force and the skills of the local active population. Incremental types of innovation strategies seek to minimise this mismatch by increasing the added-value produced in traditional sectors. Such strategies can be found in all TeDi regions, and especially within agriculture (new production techniques, food processing, joint labelling of local products, bio-technological innovations based on natural specificities etc.) and tourism (better exploitation of the physical capital, more recreational infrastructure etc.).

Notions such as “small scale economies” and “transitional labour markets” help to understand the specific dynamics of areas characterised by the relatively smaller and more isolated local communities in which most of the specific dynamics of TeDi

areas can be observed. The difficulties of these territories are not due to a lack of assets, but to an inadequate coherence between the economic, social and ecological dimensions of development that jeopardizes its sustainability perspectives.



Structure of employment in municipalities* of ESPON TeDi case study areas



EUROPEAN UNION
Part-financed by the European Regional Development Fund
INTERREG IVC 2004-2006

ESPON

Figure 3: Diversity of Economic Profiles in TeDi areas

8. Transport and accessibility

Obstacles to flows and interaction are inherent in all types of geographic specificities. In terms of accessibility, the rough topography of mountain areas, the bodies of water surrounding islands and the wide, uninhabited areas of sparsely populated regions have similar effects: On the one hand, they limit the functional neighbourhood of each locality. On the other, they make it more costly to import and export goods, both because the volumes are limited and because specific infrastructures are required to overcome the physical obstacles.

However, the existence of an economic handicap linked to low accessibility has not been demonstrated. Firstly, studies have shown that, considering the generally limited relative importance

of transport-related expenses in total production costs, it is difficult to identify a causal link between peripherality and low economic performance. Secondly, industries developing in remote areas are naturally the least dependent on proximity to major markets, making it impossible to quantify a transport-related “handicap”.

The lack of reliable transports can, however, be a critical parameter. Communities in Territorial Diversity areas are often dependent on a limited number of transportation modes and routes, and can be particularly exposed to climatic hazards. Disruptions resulting from this may effectively limit economic development, as most industries are dependent on reliable transports.

Is low accessibility the issue ?

Geographically specific areas generally face challenging situations with regards to their accessibility. However, situations vary greatly, as is illustrated in the case studies of the ESPON TeDi project. The Maltese islands, northern Iceland, Marathasa and Tylliria in north western Cyprus, the Romanian mountainous regions of Alba and Suceava and North Calotte are all situated at the outskirts of Europe. However, northern Iceland and Gozo are however also peripheries within a periphery, dependent on connections to Reykjavik and Malta, respectively, for access to international markets. In Alba and Suceava, the low quality of secondary roads is an important additional concern. Marathasa and Tylliria's peripherality has been

accentuated by the Turkish occupation of adjacent areas. In North Calotte, the network of regional airports is an important tool to compensate for the long distances that separate the various towns and settlements.

Furthermore, European peripherality does not need to be a handicap: North Calotte is increasingly functioning as an interface to north western Russia, benefiting from increasing commercial relations. Together with northern Iceland, it also tries to position itself as a gateway to the Arctic.

Not all geographically specific areas are situated on the outskirts of Europe. The Valais is located between the large cities of northern Italy to the south and the urban regions of Lausanne, Fribourg

and Berne to the North, but it is effectively isolated these potential metropolitan influences by mountain ranges of up to 4,000 m on both sides of the Rhone valley. This relative isolation in the centre of Europe creates a particular set of challenges and potentials. The physical obstacles to mobility are less acute in the Jura, but this region nonetheless experiences difficulties positioning itself at the crossroads of influences from Basel, Berne and the French city of Belfort.

Considering this wide diversity of situations, measuring and comparing accessibility levels is very difficult. One can also question the usefulness of measures of accessibility for prospective analysis and territorial strategies, insofar as the construction of new transport infrastructure connecting geographically specific and peripheral regions to central areas will increase, rather than reduce, the relative differences in accessibility. The problem for geographically specific areas is, therefore, not their low accessibility compared to central areas, which is in any case a structural and permanent feature of these regions.

A focus on industrial needs and coherence

The main issues to be addressed are rather the lack of transport infrastructure needed for the economic development of individual regions, on the one hand, and the insufficient coherence of regional transportation systems, on the other. This implies that local needs in terms of transport infrastructure should be assessed on a case-by-case basis. Connecting a region to Trans-European Networks is not necessarily the priority to achieve strategic economic development objectives.

As noted by Andrew Copus (Gløersen et al., 2006), improvements in accessibility do not mechanically lead to improved economic performances but may, on the contrary, have a perverse “pump effect”, exposing peripheral economies to competition from central areas, and thereby weakening their service functions and endogenous economic development dynamics. By increasing the dependence on external service providers and employment opportunities, the improvements in accessibility may therefore have a negative impact on territorial cohesion. This illustrates the need to accompany infrastructure improvements with soft measures to ensure that they effectively lead to a more balanced and harmonious development.

Selective infrastructure improvements and progressive reductions in protectionist regulatory measures may in some cases be required. In Gozo, the lower accessibility is the main reason why there is less pressure on land use than in Malta and may be a prerequisite if the island is to become an “Eco-island” as is suggested in some strategic documents. The reluctance of some Gozitans to accept projects for building a bridge between Malta and Gozo illustrate these ambivalent effects of accessibility. In Marathasa and Tylliria, while improvements in the transport infrastructure are eagerly promoted in view of attracting more tourists, new trade regulations facilitating flows by opening up the borders and removing protectionist barriers have had detrimental effects. By facilitating imports, these changes have indeed contributed to putting local fruit producers out of business. Because these effects were not anticipated and no compensatory schemes were implemented, major turnaround measures are now needed.

9. Natural resource exploitation benefitting local communities

A biological or physical feature only becomes a resource if someone designs or recognises a role for it in a process contributing to satisfying certain human needs or meeting some kind of market demand. One can therefore argue that natural resources are invented as much as they are discovered, and that economic actors consciously interact with nature for production purposes. This interplay between man and nature plays a particularly important role in territories with geographic specificities, because of the relative importance of activities such as agriculture, forestry, fishing, mining and tourism. These sectors of activity provide essential inputs

for European industries. However, the economic benefits drawn from them by the regions do not necessarily reflect this strategic importance, as small-scale agriculture often generates limited incomes and as capital-intensive raw material extraction activities are often owned and operated by companies with headquarters situated in metropolitan regions. The objective is both to increase the local social and economic benefits drawn from these activities and to ensure that European policies take proper account of their strategic importance, even when the value-added generated may seem modest.

Conflicts between territorial scales

Conflicts in the exploitation of natural resources are to be found in multiple case study areas. The Romanian county of Alba offers an example of such a situation. In this area, the Rosia Montana Gold Corporation (RMGC) intends to exploit some of the largest gold deposit in Europe by using open cast cyanide leaching to separate the gold from the ore.

Alburnus Maior Association, a local NGO, considers that the RMGC project will directly affect 1600 hectares of land and that about 800 hectares of forest will be cleared, the lake of cyanide tailings from Corna Valley will spread over 600 hectares and will have a 185 meter high dam. In their opinion, this will lead to destruction of numerous churches and threatens the ruins of the Roman city Alburnus Maior. Furthermore, 958

households are threatened with expropriation. Overall, it is estimated that the project will generate 196 million tons of cyanide.

To gain access to land for the development of the mining project, Rosia Montana Gold Corporation began buying properties in July 2002. To date, 78% of private properties (farms) from the impact area of the project have been purchased. RMGC emphasizes that this project will have a positive impact, as the modern mine to be built will reinvigorate the local economy and will honour the cultural heritage, while respecting global standards in environmental protection and social protection.

These claims are, however, challenged by several local groups and some of the national environmental NGOs, who argue that the mining

operations would lead to a net loss of jobs and development opportunities. Alternative sources of living for the local communities, e.g. based on ecotourism, would be threatened. They mention examples such as Albac, where the agro-tourism has expanded and there are more than 50 hostels operating, or Arieseni, where tourist interest in the ski facilities has been growing.

Independently of debates on whether one should preserve a natural area such as the Rosia Montana or exploit it, this is an example of how a policy focusing on the full exploitation of local territorial resources may be in contradiction with economic strategies at the national and/or European levels. The interests of the different territorial levels do not converge. The possible conflict between economic and environmental perspectives can also be an argument for the need of more coordination of sectoral policies.

It is therefore necessary to design policies to promote a better convergence of local regional, national and European economic development interests. This can, for example, mean that the strategic importance of certain types of natural resource exploitation is recognized by ensuring that the communities making them possible are balanced and harmonious. Pay-back mechanisms are required for this purpose.

Positive externalities of environmental services

The positive effects of human presence in TeDi areas may be difficult to quantify. Euromontana (2009) describes the positive externalities of amenities such as a pleasant landscape, fresh unpolluted air and biodiversity. Territories with

geographic specificities also provide public goods, i.e. natural elements that are enjoyed freely and therefore do not have any market value. Finally, the notion of environmental services describes actions that have beneficial ecological effects. For example, forestry activities may contribute to reducing erosion and limiting the risk of flooding; sheep grazing can help prevent the forest from being choked by undergrowth, thereby reducing the risk of fire. These elements may help to justify measures to preserve settlements than might not be considered viable from a purely economic point of view. However, this presupposes that they are systematically identified and reflected in the policy process.

Natural resource policies to preserve European diversity

North Calotte is in a particular situation, as it is home to the Sami community, which, as the only indigenous people of Europe, claims ancestral rights of land usage and exploitation. Forestry and agricultural activities are frequently in conflict with their reindeer herding activities. Such disputes over resource exploitation in a single territory, which are largely unresolved politically, create a particular perspective for territorial cohesion policies seeking to promote balanced and harmonious development. This is, however, more generally an obvious example of how natural resource policies are also about the preservation of the cultural diversity of Europe and of a multiplicity of lifestyles and economic production models.

10. Tourism based development: default option or ambitious strategy?

Tourism is described as an attractive development option in all TeDi areas. Their geographic specificity is an asset as such, and some areas also possess a cultural heritage that can attract visitors. Tourism therefore a priori appears as a development possibility in all areas, i.e. a sort of "default option" that is resorted to when the lack of specialised competencies or capital makes it difficult to envisage other strategies. However, evidence shows that successful tourism developments, creating a stable source of income for local communities for the long term without jeopardizing their perspective of harmonious

and sustainable development, require well defined strategies and coordinated actions of a wide range of public and private actors. The case studies include both established tourism hot spots, e.g. Malta, Zermatt in the Upper Valais or the Santa-Claus village of Rovaniemi in Finnish Lapland, and regions still seeking to formulate a tourism development strategy. Therefore, they illustrate the extensive scope for experience sharing and mutual learning among territories with geographic specificities, especially when it comes to exploiting unique and often underestimated assets.

Diversifying local economies through tourism

The development of tourism is a way of diversifying local and regional economies, typically in predominantly agricultural rural areas. It may go hand in hand with strategies to promote the production of high quality foodstuffs in a preserved natural environment. In Gozo, for example, an eco-label strategy aims at utilizing environmental aspects as an asset both to attract tourists and to open up new possibilities for environment-related research, with the establishment of research laboratories supporting modern agricultural technologies related to livestock, biodiversity and local products. Tourism is therefore clearly identified as one component among others in the development strategy. In Marathasa and Tylliria, local stakeholders seek to overcome the current dependence on low value-added agricultural production by developing a wide range of tourism activities,

such as agro-tourism, conference-tourism and sports-tourism. This diversification of the activities proposed should help to reduce seasonal variations. The promotion of an integrated brand for the area, with the Troodos Mountain Nature and Culture Park, is deemed important to highlight the specificity of the touristic offering of the region. This park covers a wide area of great natural beauty around the peak of Mount Olympus. It is suitable for activities such as hiking, winter skiing (although limited), biking, nature study and picnics. Along with natural wealth, the Troodos mountains harbour the painted churches of Cyprus can be found, superb examples of Byzantine art, ten of which have been put on UNESCO's World Heritage List. As such, Marathasa and Tylliria can contribute to the national objective of changing the general perception of Cyprus as a "sun and sea"

destination, positioning it in market segments with less competition and greater potential economic, social and environmental benefits.

The hilly parts of Suceava in north-eastern Romania are in a similar situation, as they comprise natural reserves such as the Calimani National Park, numerous year-round sports tourism opportunities (e.g. skiing, fishing, hiking, paragliding and rafting) and also possess significant cultural assets. The 15th and 16th century monasteries of the region are famous for their exterior frescoes, seven of which are included on the UNESCO World Heritage List. Finally, there is a long tradition of spa-tourism, e.g. in Vatra Dornei where it has also been possible to develop a casino activity. The region already attracts around 100,000 visitors annually; the challenge is to design integrated tourism products that will make it possible to increase this number.

In the region of Alba, on the other hand, apart from the development of winter tourism in the Arieseni ski area, the focus is on small-scale rural tourism. The limited size of many farms creates favourable conditions for agro-tourism, in combination with the promotion of handicraft production and high quality food products, as a basis for improving the income and quality of life of the rural population. As such, this is part of a strategy to turn an initial handicap, a traditional agriculture with limited mechanisation, into an asset. It is, however, noted that this strategy presupposes infrastructural investments.

As illustrated by these examples, tourism development strategies do not only need to be adapted to the geographic specificities of each territory, but must be considered in combination with other

existing or potential sectors of activity, with a view to contributing to the balanced and harmonious development of the concerned communities.

The creation of tourism products and exploitation of "intangible resources"

Some tourism initiatives of TeDi areas are only indirectly related to the natural environment. The North Calotte spatial research centres of Andenes in Norway and of Kiruna in Sweden benefit from the high latitudes of these regions, creating advantages for the study of solar electromagnetic phenomena and for downloading data from remote sensing satellites circling around the planet. But the expertise within these high technology activities also opens up perspectives for "space tourism", with projects of organising commercial suborbital flights from Kiruna. These initiatives have led to the inauguration of "Spaceport Sweden" in 2007, and the conclusion of agreements with Virgin Galactic, which aims to operate the flights. Another initiative in Rovaniemi in Finnish Lapland demonstrates the possibility of developing a tourism industry based on an "intangible resource". Initiated by a public strategy in the 1980s, the "Santa Claus tourism" concept was implemented together with exceptionally well-coordinated efforts of private commercial interests. Admittedly, this initiative was facilitated by the presence of reindeer and the possibility of mobilising some nearby elements of Sami (Lappish) culture. However, the Santa Claus concept was mainly established thanks to a long-term marketing strategy and through joint efforts to create a coherent tourism product.

11. Knowledge-based development strategies

Positioning any region in a strategy of developing advanced, high value-added products requires constant R&D efforts and the emergence of an economic environment that encourages new approaches and fosters innovation. However, many TeDi areas are struggling to profile themselves as potential recipients of knowledge-based economic development initiatives, as it is recurrently claimed that Europe should assert itself globally by targeting large research environments in metropolitan regions. Admittedly, the efficiency and quality of small generalist higher education facilities is often questioned. There are, however, numerous

examples of research centres in mountainous, insular or sparsely populated regions that produce world-leading research within specific niches.

Another type of approach in TeDi areas is to develop strategic partnerships with external research environments, with a view to allowing local industries to benefit from recent advances within relevant fields of R&D. The challenge in this respect is to establish the basis for a balanced long-term cooperation that is mutually beneficial for all the partners involved and to define what public authorities can do to further this aim.

R&D in territories with geographic specificities

In most case study areas, current or foreseen research facilities focusing on the core economic activities of the regions are mentioned, e.g. within agriculture, forestry, mining or tourism. In Suceava, R&D efforts focus on increasing the added-value produced in the agricultural sector by promoting bio-technological innovations, based on the natural specificities of the region, e.g. phytogenetic resources in the northern parts of the Carpathian Mountains or genetic vegetal resources of “less explored”, remote geographical areas. Marathasa hosts the Cyprus Forestry College, a tertiary training institution that attracts a large number of international students. In Gozo, environment-related research is developed as part of the eco-label strategy, with the establishment of research laboratories supporting modern agricultural technologies

related to livestock, biodiversity and local products.

The Norwegian coastal town of Fiskebøl in the Lofoten islands illustrates another approach. With the development of oil and gas exploitation in the Barents Sea, the growing risk of oil spills along the northern Norwegian coast has given further impetus to its development as home to one of the world’s leading producers of oil containment booms and a wide range of specialised equipment to handle environmental disasters resulting from hazardous liquid spills. In the same locality, the North Norwegian Centre for Emergency Preparedness proposes courses, seminars and consulting services on risk and disaster management related to the extraction and transportation of oil. Together, they have formed the Arctic Centre for Protection against Oil Spills in an effort to mutualise the expertise of the

local cluster.

The possibility of implementing cluster strategies in TeDi areas is also illustrated in the Valais, where the objective is to strengthen the relations between SMEs in the region, and to focus on some high-value economic activities such as chemistry and the production of herbal preparations that will serve as spearheads for the regional economy. Clearly, in the case of Valais, innovation policies do not try to encourage the emergence of high-tech industry. On the contrary, incremental innovations are sought in agriculture (new techniques for mountain agriculture, food processing etc.) or tourism (winter sports infrastructures etc.) based on the existing economic activities.

A broad understanding of “innovation”

A broad understanding of innovation generally prevails in TeDi areas. The North Calotte regions have been particularly proactive in promoting principles of “Triple Helix ” in their territorial development policies, with improved partnerships between the public and private sectors and R&D institutions as the basis for economic growth. This model is now being extended to include the social economy or “fourth sector”, in what is called the “Quadruple Helix”. Continuous organisational innovation is by way of consequence seen as an integral part of knowledge-based development.

Such projects necessarily derive from a negotiation process that brings together a coalescence of actors in a design process. Their coming together reflects new types of a variable geometry in the functional territorialities. However, these collaborative groups also constantly need to relate to the more stable

institutional boundaries and structures within which public authorities and bodies intervene. Organisational innovation emerges from these complex interactions between groups and territories. This can be a particularly relevant notion in TeDi areas, insofar as the geographical specificities create a relative isolation or “a sense of locality” that makes it easier to challenge norms and structures imposed by central authorities. One can also hypothesise that the limited numbers of local actors create a particular need for public interventions, ensuring that the efforts and initiatives of individual resource persons are followed up in the framework of a long-term strategy of knowledge-based development.

Symbolic importance of knowledge intensive and innovative activities

Neither should one underestimate the importance of knowledge intensive and innovative activities in challenging and changing the perception of territories with geographic specificities as being, at best, one step behind other regions. The presence of leading research facilities can change the perception of local communities and stimulate more positive social and economic trends. In northern Iceland, the establishment of the University of Akureyri in 1987 is described as one of the most effective measures ever taken in Icelandic regional policy. It has strengthened economic life in Akureyri and surroundings and is now a strong and stable university that plays a key role in economic development in northern Iceland. In addition to its economic impact, it has also helped to redynamise the educational structure of the region as a whole.

12. Specific ambitions for specific territories?

As has been described in the previous sections, regions considered by the ESPON TeDi project have diverse ambitions for their territories. The question is whether one can identify any general differences between the objectives and strategies of these territories and the rationale for growth and sustainable development that prevails at the European level.

A focus on a maintained human presence in some areas

In areas confronted with demographic decline, the main ambition is to create the conditions to sustain a long-term human presence. While this presupposes the development of sustainable and competitive economic activities, it does not necessarily imply that efforts to maximise growth are required. On the contrary, the concerned local communities need to adapt to a situation with a reduced population, in view of stabilising the demographic trend on the short or medium term. As such, they can be considered as test cases for the increasing number of so-called “shrinking regions”, where strategies to manage reducing population numbers are needed or will be in the near future.

Conflicts between preservation and integration?

Other Territorial Diversity regions such as Gozo and the Jura are contiguous to dynamic and densely populated areas, and seek to position themselves in relation to these. Conflicting types

of aspirations are expressed in this regard. On the one hand, there is a wish to be fully connected to their growth dynamics and to benefit from the services they offer. On the other hand, these areas, with reference to their geographic characteristics and cultural specificities, seek to preserve their differences. In the case of Gozo, the lower population densities, environmental assets and traditional lifestyle are some of the values local stakeholders wish to safeguard. At the same time, there is an aspiration to improve the functional integration to Malta. The Canton of Jura is a French-speaking enclave in north-western Switzerland that was founded as late as 1979. On the one hand, it seeks to reap benefits from its proximity to the Basel metropolitan region and to Belfort and Montbelliard, which will be connected to the French high speed railway network in 2011. On the other hand, a group of regional development measures introduced under the banner “*Opening up the Jura*” (“*Jura, pays ouvert*”) were rejected by public referendum in 2004. This illustrates the difficulty in formulating a consensual development strategy for TeDi areas that will overcome the contradiction between the “preservation of specificities” and the “alignment with other territories”.

Who has the capacity and legitimacy to formulate alternative development models?

In view of formulating a solution to this dilemma, the Northern Sparsely Populated Areas, a transnational group of regions in

northern Finland, Norway and Sweden including North Calotte, have organised a Foresight process in which regional and local stakeholders have been actively involved. This has led to the production of a report outlining a vision for the area in 2020 and a policy road map. By branding the region as “Strong, Specific and Promising” the representatives of the regions claim that the preservation of these regions’ specificities is a prerequisite for the sustainable exploitation of their potentials rather than an obstacle to their development. However, not all TeDi regions necessarily have the institutional and economic capacity to formulate and implement the alternative development models required to turn difference into a strength in this way.

Promoting a diversity of lifestyles

A further challenge is to accommodate aspirations of the population to adopt a homogenous mainstream lifestyle in territorially diverse areas. The European Commission in its Third Cohesion Report defined Territorial Cohesion as a policy seeking to ensure that “*people should not be disadvantaged by wherever they happen to live or work in the Union*”. Such an ambition not only appears unrealistic in terms of the infrastructural investments and foreseeable cost of delivering the services to make this “absence of disadvantage” possible. It may also lead to unsustainable environmental pressures when wide-ranging mobility patterns are encouraged to compensate for the lack of local employment opportunities or services. The Conference of Peripheral Maritime Regions (CPMR) has translated this approach of territorial cohesion into a principle of fairness,

whereby “*the objective of territorial cohesion is to [...] offer fair access to services of general interest and to ensure optimal competitiveness conditions for all territories.*” The key issue for Territorial Diversity areas is to define what this principle of “*fairness*” would entail.

The key importance of internal and external branding

It is notable in this respect that areas beyond commuting distance from urban centres offering the basic range of Services of General Interest almost systematically experience demographic decline. Social sustainability therefore appears to presuppose certain threshold levels of service provision making a modern, contemporary type of lifestyle possible. There are, however, obvious differences from country to country in the expectations and demands with regard to the smallest acceptable range of services.

Furthermore, demographic stabilisation or growth can be observed in a number of tourism hotspots in spite of limited access to services of general interest. A possible hypothesis to explain this is that tourism development helps to create a positive perception of the local area both internally and externally. The perception of being “in the loop” can be a determining factor of demographic and economic dynamism. Territorial branding is about creating an awareness of local assets and emphasizing the qualities of specific territories. Europe may play a key role in this respect, by challenging established national preconceptions on territorial potentials and by providing external recognition of local initiatives.

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The present Handbook synthesises the results of the ESPON TeDi project, an applied and exploratory study of economic and social development potentials in regions with geographic specificities. What does it require for a mountain region, an island or a sparsely populated area to develop to the full extent of its potential? To what extent do specific geographic features, and the particular social and economic characteristics with which they are associated, imply a need for special treatment in terms of policy measures? These are some of the key questions addressed by the Handbook on the basis of evidence from eight case study areas.