

## Development of border regions at the former Iron Curtain

Research Project of the 5th Framework Programme of the EU, Interim Results

Entwicklung von Grenzregionen am ehemaligen Eisernen Vorhang

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### Zusammenfassung

Mit einer Finanzierung aus dem 5. EU-Forschungsrahmenprogramm werden im Projekt Iron Curtain die Auswirkungen der Aufhebung des Eisernen Vorhanges in 6 Referenzregionen untersucht. Die Regionalentwicklung der letzten Jahre wird in einem grenzüberschreitenden Ansatz betrachtet und hinsichtlich Wettbewerbsfähigkeit und Nachhaltigkeit analysiert. Die Referenzregionen liegen jeweils an den Grenzen Norwegen/Russland, Deutschland West/Ost, Deutschland/Tschechien, Österreich/Tschechien, Österreich/Ungarn, Griechenland/Bulgarien. Die langen Jahre des Eisernen Vorhanges und unterschiedlicher rechtlicher Gegebenheiten und Landnutzungsentwicklungen bedingten sehr unterschiedliche Auswirkungen auf die ökologischen und wirtschaftlichen Parameter dies- und jenseits der Grenze. Mit dem Fall des Eisernen Vorhanges ergeben sich nun abermals einschneidende Veränderungen beiderseits der Grenzen.

**Schlagnorte:** Regionalentwicklung, Eiserner Vorhang, EU-Erweiterung

### Summary

The overall goal of the Iron Curtain Project is the development and exploration of innovative models and critical key factors for sustainable development and integrated cross border regional management. It is financed from the 5th EU Framework Programme. The project analyses the development of six cross border reference areas along the former Iron Curtain. The reference areas are located at the former Iron Curtain in the border regions Norway/Russia, Germany West/East, Germany/Czech Republic, Austria/Czech Republic. The long years of the Iron Curtain and the different administrative systems and land use developments had very different impacts on ecological and economic parameters. The fall of the Iron Curtain again caused drastic changes on both sides of the border which will be analyzed in the light of competitiveness and sustainability.

**Keywords:** regional development, Iron Curtain, EU-enlargement

### 1. Project design

The overall goal of the Iron Curtain Project is the development and exploration of innovative models and critical key factors for sustainable development and integrated cross border regional management. It is financed from the 5th EU Framework Programme. The project analyses the development of six cross border reference areas along the former Iron Curtain. Besides the methodological focus of the project the result is also a sample of the various problems, risks and chances of the regions which are now in the procedure of growing together after nearly 40 years of artificial separation. The interdisciplinary project comprises hydrogeology, ecology, land use, regional science and agriculture in detail. The duration of the project amounts to three years until the end of 2004. Relevant end users are active institutions in regional and EU policies, in the field of agriculture, resource management and regional planning.

The consortium consists of experienced partners in regional land use planning, in geo data analysis and integration, in development of regional data bases and information systems as well as in environmental and regional management, in sustainable agriculture and forestry and in rural economics. Specific partner groups knowing the local circumstances will take care of the case studies and contribute with this ex-

perience to the reference model and specific recommendations. Lead Partner is the Division of Ecosystem Analysis of the University of Leoben, working together with the Department of Civil Engineering of the Aristotle University, Thessaloniki, the Department of Geography and Geoinformatics of the University of Salzburg, Department of Geography of the Friedrich-Schiller-University, Jena, Department of Hydrogeology and Engineering Geology of the University of Miskolc and some Consulting offices of Oslo, Prague and Budapest. The Federal Institute of Agricultural Economics is a subcontractor to the University of Salzburg and has its focus on the Austrian reference areas and the impact of the agricultural policy.

The methodological approach combines method oriented work packages and empirical work packages concerning the reference areas.

The following steps of work are in progress.

- Common (cross-border) area description of 6 reference areas (incl. existing guidelines on different levels),
- problem identification and identification of accepted objectives to solve the identified problems in the reference areas, following the TEMPUS handbook of the EU (Objective oriented project design and management, European Commission, 1998),
- identification of parameters and indicators to describe and measure the problems and objectives (based on EU, UN and OECD Indicators, developing an own indicator set; United Nations, 2001; OECD, 1998 and 1999; Europäische Kommission, 2001; Bittermann et al. 1999, Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, 2000; Greif, Pfusterschmid, Wagner 2002; Österreichisches Institut für Nachhaltige Entwicklung, 2002),
- Development of different scenarios for the further prospective of the reference areas,
- SWOT Analyses of scenarios for the development of the reference areas,
- Regional modelling with the model VENSIM (Ventana systems, 2003) to assess the different scenarios with the focus on sustainability and competitiveness,
- in all the topics regional working groups, consisting of project members and local experts form a steering committee and accompany the process.

The official project homepage is [www.ironcurtainproject.com](http://www.ironcurtainproject.com)

## 2. Reference areas

The different land use and legal systems along the former Iron Curtain lead to different economic and ecological impacts. Now, more than ten years after the fall of the Iron Curtain the difference is still considerable in manifold cross border problems. On the one hand the dead border was a chance to beware origin natural conditions and avoid mistakes of hasty economic and infrastructural development. On the other hand the lack of regional development led to a difficult regional economic situation with only little future perspectives in many cases. The fall of the Iron Curtain and the process of growing together give the chance to avoid mistakes made in other regions in former periods. The EU-Accession is already the next step of growing together.

The six reference areas along the European north/south traverse comprise a variation of different degrees and rates of cross border activities and developments in rural areas (see fig. 1):

- Norway/Russia, Pasvik River,
- German West/East, Rhön Area,
- German/Czech, Bavarian/Bohemian Mountains,
- Austrian/Czech, Waldviertel-Trebon Basin,
- Austrian/Hungary, Kekfrankos Region,
- Greece/Bulgaria, Basin of River Nestos.

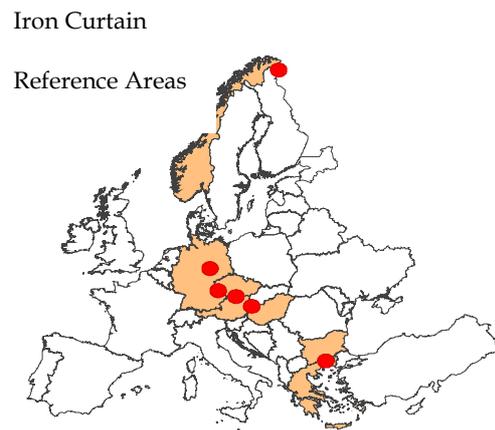


Figure 1: Iron Curtain Reference Areas

In the following text I give a more detailed description together with methodological information in the case of the Austria/Hungary Kekfrankos Area because our work is focused there. For the other reference areas I will describe the problems and objectives only shortly.

## 2.1 Austria/Hungary

The Austrian-Hungarian reference area is situated in the region of the cities Eisenstadt and Sopron. Also the border-crossing National Park Neusiedler See/Fertö is included. It is a region which was one unit in former days. It has been divided by the Iron Curtain during 40 years. Many connections have been abandoned. The region is a relatively homogenous region across the border line in terms of natural conditions and agricultural land use. Due to the different economic systems completely different processes took place in the years of the Iron Curtain. Now these two regions are growing together again and many of the old connections come to life and are developing like the nerve system of an organism. The fall of the Iron Curtain and the accession-activities of Hungary to the EU caused a boom in border-crossing offi-

cial and unofficial collaboration. This recent situation raised numerous questions concerning improvements in harmonisation and joint development challenges as well as in dealing with upcoming threats of rapid and uncontrolled developments.

Natural conditions for agriculture, forestry and particularly for horticulture and wine production are very favourable. The major land use types are forest, arable land, vineyards and orchards, also reed at the area of the Neusiedler See (Fertő). The landscape is cultivated very intensively, restrained by the EU agricultural and environmental policy on both sides of the border. In the same time the intense agriculture threatens the quality of environment with high loads of nitrate in the groundwater, particularly in the aspect of the very shallow and unstable lake, which is endangered also by material deposition due to soil erosion. However, in the last decade extensification of farming and the decrease of arable land could be recognised as a consequence of the recent EU development strategy and economic conditions. Due to the importance of wine production and its contribution to the local economy the extent of vineyards stabilised or even increased simultaneously with orchards on the Hungarian side but is decreasing in Austria. Land properties are relatively small on both sides of the border. Huge areas of arable land of the co-operatives in Hungary have been privatised and given back to the original owners. Owing to the relatively wealthy and industrialised hard working population on both sides many parcels are set aside or cultivated by part time farmers. The small share of full time farmers practice on high levels, with high chemical and energy inputs resulting in strong pressure on the environment (severe erosion occurs in the Fertő lake shore due to grape production, etc.). The expansion of Austrian farmers to Hungary, caused by cheap land rents and a lack of capital in Hungary, is observable.

The service sector in the local economy is very strong. Due to the favourable location of the border area and its rich natural, cultural and architectural heritage tourism (also the shopping tourism) is a very important economic factor, which contributes heavily to the regional domestic product. But it contributes also to a critical traffic situation in addition to the supra-regional importance and frequency border-crossing point Klingenbach-Sopron. Industry has its centre in Sopron and is mainly determined by the brewery and remnants of textile production; heavy industry was increasing till the end of the 1980-ies. This

trend has stopped after the fall of the Iron Curtain when the service sector became dominant. The Austrian part of the region is centred by the focal points of Eisenstadt (capital of Burgenland) and some smaller trade and industrial centres (Mattersburg, Siegendorf, Hornstein). Vienna – in a daily commuting distance – is an additional factor of great influence on the man power drain from east to west.

In recent years the life of the local population has been affected very much by joining the European Union as well as by the fall of the Iron Curtain. The trans-boundary economic and personal connections have been multiplied in both number and significance and became the most important factors for regional development. The demographic situation on both sides of the region is characterised by a partly over-aged population. The case is changing in recent years in Austria due to the “remigration” and settling down of even younger families in rural areas thanks to better and less expensive living conditions while in Hungary the opposite trend can be observed.

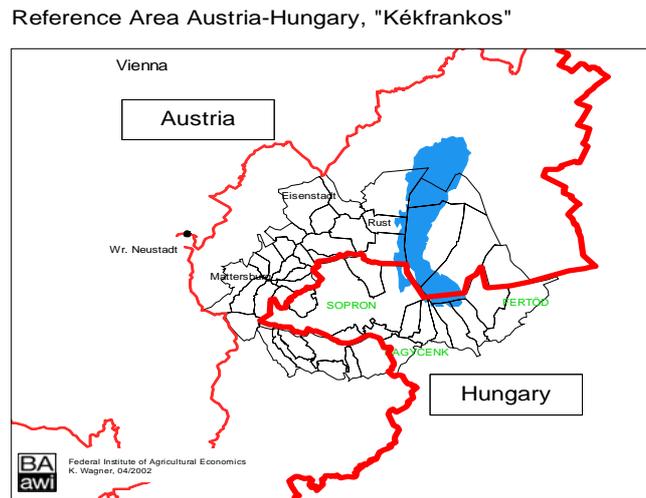
Main problems Austrian/Hungarian reference area:

- Economics: Problems related to land ownership, real estate prices, purchase power outflow, competing, redundant development and investments, low rate of high tech and innovative enterprises, trade and industry, research and development,
- Social and labour market: Lack of qualified manpower, manpower drain across the border and out of the region (Vienna),
- Infrastructure: limited resources, sewage system in Hungary, unbalanced tourism infrastructure,
- Environment: tourism pressure, groundwater problems, sustainable land use, land ownership and management rights for natural resources.

Main objectives Austrian/Hungarian reference area:

- Economics: encourage interaction, co-operation of regional centres, harmonize developments,
- Social and labour market: make Sopron more competitive in settling down manpower,
- Infrastructure: develop and harmonize tourism related facilities and infrastructure,
- Environment: sustainable land management, manage and optimize tourist loads.

Figure 2: Reference Area Austria/Hungary



The reference area working group together with the steering committee developed three scenarios which seem to be worth for evaluation. Two scenarios concern the quality of special strengths of the region: vine production and tourism. They are very suitable for common cross-border targets as there are: to raise the level of qualities, to gain image and to create a common image of the region in combining the special supplies on both sides of the border. One - more controversial - scenario stands for the city of Sopron with a strengthened role as a regional centre. Until now Eisenstadt has much more administrative functions in Austria than Sopron in Hungary. But nevertheless Sopron is highly appreciated in some special services (shopping, dentists, opticians...) and it will be more important if it will be vested with additional administrative functions in the Hungarian administrative system. The Austrian centres of the region (Eisenstadt, Mattersburg) are in fear of a too strong centre Sopron. They are afraid to lose their importance between the higher ranked centres Sopron, Wr. Neustadt and Vienna.

In different SWOT analyses for the scenarios the reference area working group tried to bring a hierarchical order into strengths, weaknesses,

threats and opportunities and tried to filter the most important relations between them. This helps to develop an approach for strategies and to derive indicators and factors which could measure the development. With VENSIM (Ventana Simulation Environment) a prognosis and comparison of the scenarios in terms of competitiveness and sustainability should be possible. It is a dynamic simulation model from the USA. Extensive sub-models are constructed graphically or in a text editor. Features include dynamic functions, subscripting, sensitivity analysis and optimization. The modelling in our project is the task of the Institute ÖKOSYS in Leoben and will happen in the last year of the project until autumn 2004. Originally the model was made for simulation on a state level, Ökosys will try to do it on a regional level. The difficulties to get over are to find the correct indicators and factors, the correct weights and relations and last not least to get the huge amount of necessary data at the matching level.

Figure 3: Scenarios for the reference area Austria/Hungary, Iron Curtain Project Consortium



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• SWOT Analysis

Subregions	Scenarios			
	Sopron appreciated Regional Centre	Region with qualities		
		Quality in vine prod. & markng	Quality in tourism	Quality in handicraft
Subregion 1.	+	+	+	<del>+</del>
Subregion 2.	+	+	+	<del>+</del>
Subregion 3.	-	+	+	<del>+</del>

## 2.2 Norway/Russia

The Norwegian-Russian border is the only one, where the Iron Curtain is still working. Nevertheless it is tried to intensify the contacts. The Pasvik River with its catchment area in Norway, Finland and Russia is one of the greatest rivers in Fennoscandia. The reference area includes the settlements of Nikel in Russia and Kirkenes in Norway with industrial mining and smelting activities. The following transborder problems are topics under investigation in the project:

- Increasing grazing pressure from reindeer with impacts on soil erosion and water quality due to top soil contamination mainly on the Norwegian side,
- industrial practices mainly on the Russian side lead to heavy water and soil contaminations on both sides of the border,
- increasing population densities in Kirkenes and Nikel with difficulties in wastewater treatment,
- increasing recreation activities and eco-tourism with benefits and threats,
- increasing aquaculture with risks because of the high pollution levels of Pasvik River.

## 2.3 German/German

The Rhön Area on the border between Bavaria, Hesse and Thuringia was selected according to its ten years history in regional planning after the reunification of Germany. In this UNESCO biosphere conservation area the following problems occur:

- Declining number of farms, manpower drain, retrograde developments (uncontrolled succession, scrubbing, forestation) on the other hand also intensification of the land use,
- settlement activities, highways, railways in competition with nature preservation areas,
- unsatisfying communal waste water management on the Thuringian side,
- tourism with its role as a major economic factor but also with major impacts on flora, fauna and hydrology especially at the Thuringian side, since this area has a strong recreational potential which was nearly undisturbed during the time of the Iron Curtain.

## 2.4 German/Czech

The Bavarian-Bohemian forest area with national parks on both sides of the border has a natural and historical border with the range of the Sumava Mountains. The whole region remained untouched during the Cold War because it served as a military area. Therefore it can be seen as a certain laboratory which can provide environmental data which suffers only little from human impacts. The evident problems:

Economic forestry and bark beetle;

- water use and waste water management,
- tourism as one of the few opportunities of the region but also with the need of an extension of facilities and infrastructure which needs careful planning,
- agriculture and its economic difficulties to join profitability and environmental protection, intensification on the one hand, afforestation on the other hand.

## 2.5 Austrian/Czech

The River Lainsitz is the major surface water draining the Trebon Basin Area. It is originating in the Austrian hills of Waldviertel. The topographically contrasting regions (flat areas of the sedimentary Trebon Basin and crystalline rocks of the hills of Waldviertel) were for centuries a region of sustainable local economy (fish farming, agriculture, forestry). The following problems have been identified:

- Eutrophication and loss of biodiversity due to intensive fish farming and agriculture,
- nitrate pollution of the ground water,
- changes in the water regime due to the drainage of soils, no common water management strategy,
- loss of biodiversity in the land use because of social and economic changes in agriculture,
- Surface mining (peat and sand),
- uncontrolled construction activities and tourism,
- lack of incentives for the local economy, unbalanced manpower (quality and quantity).

## 2.6 Greece/Bulgaria

The river Nestos at the border between Greece and Bulgaria has its catchment area in both countries, most of it is declared as a National Park. It is the most important water source for three Greek districts. To a high extent the water of river Nestos is used for irrigation and for the production of hydroelectric power in both countries and still there are plants and reservoirs under construction. So the sensitive ecosystem is under great pressure. The following problems occur:

- No common water resource management and environmental protection concept because of different national monitoring and legislative systems in the two countries,
- risks for the environment of the downstream part and the delta of the river Nestos because of unknown pollution sources on the Bulgarian side,
- the agricultural development in the area depends directly on the joint water management,
- untreated urban wastes and runoff,
- EU principles and priorities concerning sustainable development and joint water management have not yet been adopted by the Bulgarian government.

## 3. Conclusions, chances and risks

The sample of reference areas shows the broad context of the problems along the former Iron Curtain. Border crossing problems concern e.g. water quality and water quantity, air quality or typical problems of disadvantaged regions with development deficits. But there is also the threat of too rapid progress in a kind of spatial vacuum, which existed for 40 years at the Iron Curtain. Some good but also some bad achievements of the last 40 years went by without a trace in these Iron Curtain regions. A careful regional planning and management is necessary to avoid now unsustainable development or additional environmental harms.

In comparison it becomes clear that the traditional relations and historical conflicts between neighbour countries determine the speed of the process of a common regional development. In regions with traditionally good relations it is an easier task. It is a pity that the communi-

cation language is a continuing problem. In most cases English instead of one of the two neighbouring languages is the language of cooperation. A certain case can be observed in the Austrian-Hungarian reference area. In the times of the empress Maria Theresia Croatian people have been settled in some villages on both sides of the now existing border. They have kept rests of their own culture and speak the Croatian language. This was a kind of associating element also in the times of the Iron Curtain and it helps now in the development of re-establishing a lot of connections, at least because of the same language. Good will is expressed almost everywhere and the people accept that only intensive cross-border cooperation can solve problems. Nevertheless we can feel distrust if it goes into detail of planning processes and competition. It is easier to manage in the case of biking tracks or horse tracks – but it is very difficult if more money is at stake (thermal baths, golf courses, centres of competence).

#### Common Risks

- Economics: Unbalanced development, difficulties in cross border interactions and co-operations, segregation of agricultural areas into intensively used (environmental problems) and non used (regional economic problems, loss of biodiversity),
- Social and labour market: Lack of cooperation in manpower management across the border, unbalanced welfare systems, income and social services,
- Infrastructure: limited resources, wastewater treatments, sewage system, emission facilities,
- Environment: border crossing pollutions (water, air – soil), border crossing quantities.

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