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# Innovative Rural Development Initiatives

**Wickenhagen, A., Pontieri, A. and Heilig, G.K.**

**IIASA Interim Report  
March 2002**



Wickenhagen, A., Pontieri, A. and Heilig, G.K. (2002) Innovative Rural Development Initiatives. IIASA Interim Report. IR-02-014 Copyright © 2002 by the author(s). <http://pure.iiasa.ac.at/6771/>

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## Interim Report

IR-02-014

### **Innovative Rural Development Initiatives**

Eight case studies for testing the feasibility of a research project

Anja Wickenhagen, Adriana Pontieri, Gerhard K. Heilig

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#### **Approved by**

Gerhard K. Heilig  
European Rural Development Project (ERD)

March 11, 2002

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## Abstract

This Interim Report provides first results from case studies of innovative rural development initiatives in Europe. They were conducted by IIASA's European Rural Development (ERD) project during 2001 - primarily to test the feasibility of the research concept and to get a first realistic impression of rural development problems and possibilities at the *local* level.

These reports are only the first round of a much larger sample of some 40 to 50 case studies, which are planned for the next two years. The results from these initial investigations will be used to streamline the research procedure for the larger sample of case studies.

The rural development initiatives in this report include the following projects:

- A project to promote direct marketing of organic farming products in Eastern Germany ("Scheunenhof");
- An eco-tourism project in Estonia ("Viljandimaa");
- A Hungarian project to promote environmental protection and tourism ("SPANC");
- An EU-network project to promote integrated participatory planning in Finland, Sweden and Norway ("CROSSPLAN");
- A private initiative to establish a rural high-tech company in Carinthia, Austria ("me.chanic");
- A project in Finland to improve the social competence and labor qualifications of rural delinquents ("KEHYPAJA");
- The project of a Swedish farmer to build a small-scale wind power plant ("PITCH WIND");
- And the initiatives of a mother and son in a small Polish village to start a farm-tourism agency and an eco-technology center ("Sunflower Farm").

## ***Introduction***

In its research plan, the IIASA European Rural Development (ERD) project has outlined three major tasks:

1. In response to the lack of consistent, Europe-wide rural development information, the project is developing a multi-dimensional GIS database. This database with geo-biophysical, economic, demographic, social, political, and environmental indicators (for NUTS 3 areas) will be the basis of statistical analyses at the macro level. Its quantitative information will be also essential for the modeling activities, which are planned for later stages of the project.
2. In order to balance these macro-level analyses, the ERD project is conducting case studies at the local and regional level. This micro-level research attempts to identify, describe and analyze innovative rural development initiatives.
3. A third activity of the ERD project will be the development of a Rural Analysis and Planning System (RAPS), which is currently in its conceptual phase.

This Interim Report provides first results from the project's second research task. It includes a series of eight case study reports from our **investigation of innovative rural development initiatives in Europe**. We conducted these cases during 2001 - primarily to test the feasibility of our research concept and to get a first realistic impression of rural development problems and possibilities at the local level. These case studies are only the first round of a much larger sample of some 40 to 50 case studies, which are planned for the next two years. The results from this first round will be used to streamline our research procedure for this larger sample of case studies.

## ***Why are we conducting case studies?***

The decision to include case studies in our research plan is based on a screening of available literature dealing with rural development (see the searchable online bibliography of the ERD project available at: [www2.iiasa.ac.at/Research/ERD/DB/bibdb/bib\\_30.asp](http://www2.iiasa.ac.at/Research/ERD/DB/bibdb/bib_30.asp)).

We found that the great majority of published books and papers on that topic are highly *theoretical* and targeted to an *academic* audience. This includes many publications with social or political theories of (local) rural development. Another large group of publications deals with agro-economic analyses at the farm level – often based on empirical data from agricultural censuses or surveys. There are also many macro-economic models and theories, which apply advanced mathematical and econometric concepts to rural development. Typically, they are read by researchers with very specific methodological training. However, we found few publications, which have *practical relevance* for politicians, planners and rural entrepreneurs. In rural development, the gap between theory and practice is wide. Much of what is published seems to come straight from the “academic ivory tower”.

After screening this literature, we concluded that rural development research may benefit from a shift in perspective: It would be useful to take into account the perspectives of ordinary people that actually live and work in rural areas. We thought, that our scientific analyses would benefit from case studies of *their* problems and *their* perspectives. A main reason for including case studies in the ERD research program was to gain a better understanding of rural development issues *from the perspectives of rural entrepreneurs*.

## ***How did we proceed?***

We have chosen a rather straightforward methodology for our case studies. It consists of five steps:

1. **Identification of interesting initiatives:** We have used various methods to identify interesting projects, including recommendations of collaborators, EU directories (such as the directory of LEADER projects), Internet searches and recommendations from participants of already evaluated rural initiatives. We also made a literature review. From these sources we collected an initial list of more than 150 rural initiatives all over Europe. From this list we selected some 30 projects, which seemed to be most adequate according to our catalogue of selection criteria (see below). For these 30 projects we compiled and analyzed the available background information and tried to establish contact with their leaders. We were successful with about 20 such projects, from which we have so far visited the first 12.
2. **Acquisition and compilation of background information:** Before we visited the selected initiatives, the ERD staff compiled extensive background information. This did not only include *project-specific* information, which we requested from the project or found in the literature or on the Internet. We also collected statistical and other data for the project area. For instance, for the initiatives in Austria, we had access to the *complete* set of municipality statistics, which give a most detailed picture of the local situation. We also tried to get (physical and thematic) maps for the area.
3. **Fieldwork (interviews, observation, data collection):** The fieldwork included a 2-day visit of the initiative's village. During that visit we had one or more meetings for interviews with the leaders, and if possible, some other participants of the project. Usually the interviews were recorded on tape; in a few cases the participants were reluctant to get recorded, so we just made a protocol after the meeting. According to the situation the interviews were either structured and followed a questionnaire (see Table 1 for some of the questions); or we conducted open interviews in a discussion-like atmosphere. In addition to the meetings with representatives from the initiatives we also tried to get information from other relevant people of the village (such as the major, or people in the local pub). Finally, we also documented the overall situation of the village by making photos and short descriptions of the environment, the surrounding landscape, the infrastructure (railway station), the available services (post office) and other businesses. Since the location of our case studies were usually small villages, it was relatively easy to quickly get an overall impression of the local situation. These subjective impressions are important elements of our overall picture, which, of course, also includes the detailed statistical background data compiled from official sources.
4. **Preparation and analysis of the collected material and interviews:** The material collected during the field trips (including interviews on tape, photos, local statistical data, and observations) have to be transcribed and organized into the five dimensions of our analytical concept. These dimensions deal with
  - a) human factors (including information on demographic trends of the local area, education and training, social and cultural aspects),
  - b) economic aspects,
  - c) information related to resources and environment,
  - d) material concerning political conditions and
  - e) information regarding the technology used by the initiative.Together with the background information collected *before* the field trip, this compilation of data, interviews, and observations was subjected to a catalogue of analytical questions. For each of the dimensions we tried to answer these questions on

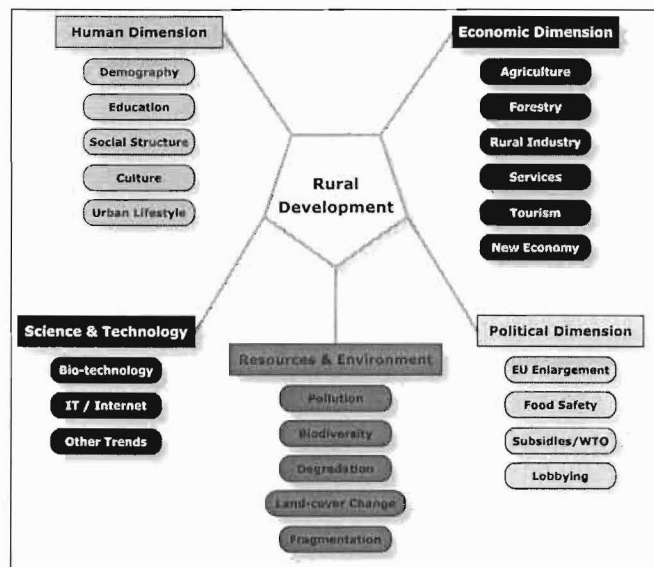


the basis of the available and collected material (see examples of these questions below).

5. **Report preparation:** Before writing the reports, we reviewed and analyzed all collected material for consistency. In particular we compared the official statistics with the interviews. Then we prepared the case study reports, which consisted of three parts: The first part is a description of the rural initiative. It should highlight the main achievements and problems of the project. The second part is a analysis of the background data, we could compile from official sources. The third part of the report gives our short evaluation of the initiative, based on our analytical questions (see Table 2).

It should be emphasized that this research procedure does *not* intend to produce full-scale project evaluations. We only wanted to highlight some characteristics of the rural initiative. In particular we tried to point out those features, which can be considered (at least to some extent) *innovative* in that particular region. Of course, we are aware that none of the rural initiatives we are presenting below are completely *new* in a strict sense. But they are certainly innovative in their particular context. For instance, eco-tourism (“Sunflower Farm”) is not new in Western Europe, but it is an innovation for a small Polish village.

**Figure 1: Five main dimensions of rural development**



**Table 1: Selection criteria for case studies of rural development initiatives**

The selected development initiatives should have the following characteristics:

- They should be **bottom-up** efforts (“local” initiatives)
- They should be based on **innovation** (“new development idea”)
- They should be **small- to medium-scale** investment (LEADER type)
- They should be promoted by one particular person or group of *local* people (“**rural entrepreneurs**”)
- They should not be based exclusively on public transfers (initiativ should have **some private investment**)
- They should have created **permanent jobs** (“not only subsidized employment”)

**Table 2: Analytical questions for case study report**

### **Human Dimensions**

- Can the initiative improve (at least to some extent) education or (vocational) training of the participants or the population in that area?
- Does the initiative increase conditions for *young* people (for instance: by improving facilities for recreation, expanding cultural activities, or by providing attractive jobs)? (We ask these question, because *aging* of the population is one of the *fundamental* problems of rural areas)
- Does the initiative support *families with children* (by providing a day care center, a kindergarten, or by improving the life of families in some other way)?

### **Economic Dimension**

- Has the initiative actually created *new* jobs? Were these jobs permanent?
- How was the initiative financed: EU subsidies, support from the regional or national government, private investments?
- How well is the initiative integrated into the local or regional economy? Does it fit into the economic structure of the region? Does it have contracts with other businesses?

### **Resources and Environment**

- Does the initiative use *local* resources („local assets“)?
- What is the environmental impact of the initiative's activities? (For instance, if it is a tourist project: does it promote a sustainable use of the landscape, or does it require massive alterations of natural conditions)
- Is the initiative harmonized with national environmental targets (for CO<sub>2</sub> reduction, protection of plants and animal species, landscape conservation)?

### **Technology & Science**

- Does the initiative use new technologies (such as the Internet, new materials, new production processes, new marketing schemes, new types of logistics)?
- Are there plans for implementing advanced technology to improve productivity?
- Are there comparable initiatives in other European countries that have higher productivity because they use more advanced technologies and methods? (We ask this question, because we have observed that rural initiatives sometimes “re-invent the wheel”. Often initiatives could benefit from better practices that are already applied in other countries.)

### **Political Dimension**

- Was the initiative started at the *local* level, or was it implanted by outsiders?
- Is the initiative supported by the local and regional political elite (major, district council, regional government body)? Does it fit into regional development plans?
- Who is making decision? Is every participant of the initiative involved in the decision process, or is the initiative dominated by a project leader (or small leading group)?
- Does the general population of the area participate in the decision process? Are there formal structures for participation (elections, boards, public hearings, etc.)?

## ***Some preliminary results***

As emphasized above, case studies are *not* intended to produce results that would be representative for a particular region or for rural development in general. They can only help us to generate new hypotheses and sharpen our concepts for further systematic research. Case studies are a good measure to get researchers out of their “academic ivory tower” – which seems to be rather important considering the large number of highly theoretical scientific publications on rural development.

From these first case studies we have learned the following lessons:

In rural development there is an enormous gap between what is printed on paper and what can be found in reality. It was quite easy to identify rural projects with good documentation, reviews in the literature, and even a working web site. However, when we tried to contact the project participants we often had great difficulties to find someone. In several cases we had the impression that the project seemed to exist primarily on paper (or in the virtual space of the Internet). We actually visited villages only to find out, that the rural development initiative located there had already ceased to exist. The CROSSPLAN project reported below is an example of such an initiative that seemed to have evaporated in thin air after the initial EU funding ran out. Many rural development projects, even if successful, seem to be one-time shots. Therefore, we can conclude that it would be extremely important to re-visit development initiatives after a few years or to study projects which started several year ago. Only long-term observation can identify viable initiatives.

A second lesson we learned from our case study work is that rural development initiatives are often more involved in academic debates than in practical action. We had expected that meetings of rural initiatives would typically focus on management issues or on the technical details of project implementation. However, what we found was often quite similar to a sociological seminar at a university. Participants discussed general questions of social philosophy or debated about political programs. We saw only a small number of initiatives, where the participants seemed to actually *do* something, such as starting a company, establishing a marketing scheme or renovating a building. For our future work it would be most important to identify those hands-on initiatives.

The third, and most important observation from the case studies reported here, concerns the social structure and leadership of rural initiatives. We would like to pose the hypothesis that those rural projects are most successful that are led by an enigmatic, ambitious leader or a *small* group of local people bound together by common interests. Good examples are the “me.chanic” project, the “KEHYPAJA” and “SPANC” initiatives and the “Sunflower Farm” reported below. All four were started and carried through by a determined leader or by a very small group of local people. Those *network* projects, where different rural groups, (urban) researchers, consultants and politicians should work together (sometimes even between different countries), seem to easily get entangled in endless discussions about principles. However, please note that this at the moment is only a hypothesis, which we will investigate in our future case studies.

## ***Outlook***

The case studies discussed in this Interim Report represent only a small selection of the development initiatives that are undertaken in the countryside. People in rural areas throughout Europe have realized that new possibilities for development are often *outside* the traditional sectors of farming and forestry. There is a wide range of possibilities for rural development. For instance, many projects try to combine agriculture and tourism; but there

are also initiatives for establishing high-tech businesses in rural areas. In our list of planned case studies we have initiatives, which try to combine environmental protection and ecotourism, organic farming and regional marketing, or the production of biomass and renewable energy generation. There are initiatives that plan to decontaminate polluted soils (along highways) with certain (genetically modified) plants, such as willow trees. If the technology works, this could certainly become a profitable business. Other initiatives attempt to combine rural tourism and archeological work; and there are many initiatives, which try to revive cultural heritage in ways, that could create jobs and perspectives for rural areas. A most successful type of business-initiatives is building “wellness centers” in rural areas. This includes both large-scale investments in thermal baths, wellness hotels, theme parks and golf centers, but also *small-scale* initiatives of farmers to improve “holiday on the farm” programs. We have seen farmers organizing seminars on traditional spices and herbs for their guests, or running courses on the distillation of high-percentage alcohol (“Kräuterschnaps”). Others are organizing bicycle tours or “open farm days” for school classes. Some farmers have teamed up with *urban* physiotherapists and provide therapeutic riding courses for handicapped children. Social workers have realized that juvenile delinquents and drug addicts may benefit from a few weeks of hard physical work on a farm. There are projects that try to resocialize young people from urban slums in a rural environment. However, the countryside sometimes seems to be quite attractive for stressed managers and other urban elites. They not only invest into country houses (which help the rural construction sector), but also expect rural entertainment and services, such as high-quality restaurants (which improves the rural infrastructure).

The ongoing case study work of the ERD project will demonstrate that there is an enormous range of possibilities for rural development. We believe that one of the reasons of rural decline in recent decades was the almost exclusive attention that politicians and the public gave to the agricultural sector. The potential of other possibilities for rural development outside agriculture and forestry was widely ignored, despite the fact that in most European countries a majority of the farmers work only part-time in agriculture. Most farmers have two or three sources of income – often outside the agricultural sector. We hope that our case study work will contribute to a much better exploration of these alternative sources of rural income.

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### Introduction

“SCHEUNENHOF” was created in 1996 as an innovative center for rural development under the administration of the AGRONA - Landwirtschafts GmbH Company. The center is situated in the northern region of Thuringia, Germany, near the small village of Sundhausen (see Image 2). The closest urban center is the town of Nordhausen, which is 5 km away. The political district (Landkreis) Nordhausen is recognized as an agricultural region and the center is the small town of Nordhausen with approximately 46,000 inhabitants. Until 1990 the region had several large mining areas for salt production, but after Germany’s unification the factories closed. That brought unemployment, because most of the population worked for the mining companies. Presently, the district of Nordhausen has, with around 20%, the highest unemployment rate in Thuringia. New ideas for innovative actions are



Image 1: The old barn after its conversion

needed and Scheunenhof is an example for such an alternative in regional development.

### History of Scheunenhof

In the 19<sup>th</sup> century the buildings and the area, where Scheunenhof is now located, was an estate, belonging to the Schreiber family. After the land reform of 1946 and until 1990 it became part of an agricultural cooperative (LPG). From 1990 to 1996 it was managed by Treuhandanstalt Berlin, who sold the area to the AGRONA Landwirtschafts GmbH Company.

Scheunenhof was created in cooperation with other local companies and associations, and with the financial

support from the EU LEADER program . The idea was to establish a new center for direct marketing of rural products from the region and combine it with the preservation of rural traditions.

The old barn was restored and converted into a modern building (see Image 1) that was opened in July 1998 and serves now as the headquarters of Scheunenhof. In March 1999 a historical country garden was added to the complex. In May 1999 the slaughterhouse and the dairy began operation and the country market opened. In April 2000 a playground for children was built and in September 2000, the petting zoo opened its doors.



Image 2: The small village of Sundhausen and its surrounding



Image 4: Butcher

### **Scheunenhof – Innovative Center for Rural Development**

Scheunenhof is a multifunctional project and home to several companies and associations with links to rural development. The following text will provide some detailed information about the actors and activities at Scheunenhof:



Image 5: Fresh dairy products

### **Slaughterhouse "Hoffleischerei Sundhausen GmbH"**

The company "Hoffleischerei Sundhausen GmbH" is managed by three partners: Wagner & Söhne, Agargenossenschaft Görzbach and Wippertaler Agrargenossenschaft. Each week, 40-60 pigs and 1-2 head of cattle as well as some sheep are slaughtered. The slaughterhouse then supplies the butcher, the restaurant at Scheunenhof, as well as 2 hotels and a catering service. Livestock comes from local farmers.



Image 6: Restaurant

### **Dairy "Hofmolkerei Sundhausen GmbH"**

Through a specialized manual process the dairy produces high quality milk products such as fresh milk, butter, yogurt and several cheese specialties. Local farmers supply the dairy with approximately 1,000-1,400 liters of milk every day. The milk products are sold at the shop in the country market. Furthermore, visitors can observe the production process, and on special occasions can produce their own butter in a traditional way.



Image 7: In the country market hall



Image 8: Exhibit of old farming machinery

### **Restaurant "Wirtshaus zur Scheune"**

The restaurant is furnished in a historical country style and presents a cozy, relaxing atmosphere. On its two levels, it can accommodate approxi-

mately 150 guests. It offers a versatile menu with local specialties and farmers dishes. Most of the products are local and the milk and meat products are directly processed at Scheunenhof. A beer garden attracts visitors especially in summer time. The restaurant also organizes family festivities as well as catering for business seminars and other special events.

### **Country Market "AGRONA Bauernmarkt GmbH"**

A country market with several small shops is located in the basement of the old barn. The market offers fresh local products, i.e. the butcher sells the locally processed meat products, and the milk shop supplies its customers with fresh dairy products. Furthermore, the market hall includes a vegetable shop, a bakery, a fish market, a florist, a pet shop and a post office. A crafts shop offers hand made gifts, especially basketry and ceramics. At the snack bar, the customers and visitors can eat light meals. All shop owners have committed themselves to environmentally friendly strategies and they use only recyclable packages and bottles with refundable deposits.

### **Historical Botanical Garden and Petting Zoo**

In 1999, a small botanical garden with historical food crops and herbs was created. The garden serves as an open exhibit and field research station. It was designed in tradition that is unique to the federal county of Thuringia. The 2800 m<sup>2</sup> area is divided into 5 sectors. Each sector presents a historical period such as the Roman era, the Caroliner era, the German era and the later middle ages. The fifth sector is used for field ex-



Images 9 -11: View at the historical country garden and petting zoo

periments with old cereal crops and medical plants. In the back of the garden a small children zoo for farm animals is located. The petting zoo includes ponies, pigs, sheep, chicken, ducks, geese and pigeons as well as rabbits and guinea pigs. During the last years the zoo has gained importance for breeding old species of farm animals like traditional breeds of sheep and goats.

### Activities and Special Events

#### Environmental Education

Scheunenhof has a cooperation agreement with the schools from the region. Several projects were established to raise the environmental awareness of young people and to provide them with insights into historical agriculture. Through “living lectures” the students get familiar with old farming traditions and learn more about their natural environment. A “green class room” offers the possibility to practice gardening and harvest their own products.

#### Preservation of Cultural Heritage

The revitalization of old country traditions and farm life is one of the objectives of the Scheunenhof initiative. A permanent out-door exhibit presents old farming machinery. In the corridors of the administration building as well as in the restaurant, old

clothes, furniture and accessories are displayed. Several times a year there are country fairs which focus on a different theme. The most famous is the “Lanzbulldog” exhibition where old tractors and steam machinery are presented. Besides this, there are cattle and vegetable markets, traditional pig roasts, sports events such as horse jumping competitions and life stock breeding shows. On local or regional holidays traditional celebrations are organized with folk dances and traditional costumes.

#### Managing Scheunenhof - Structure, Budget and Administration

The Scheunenhof project is the result of cooperation between several local associations, companies and affiliates that are all connected in one way to rural issues. In the beginning there was the idea to create an innovative center and support rural development in the political district of Nordhausen. The company AGRONA Landwirtschafts GmbH was founded by the local farmer organization (Kreisbauernverband Nordhausen e.v.), the regional farmers organization (Bauernverband Kyffhäuserkreis e.V.), the trade company Südharzer Landhandelsgesellschaft mbh and the recycling company SHL Kompost- und Entsorgung GmbH. AGRONA

bought the complex and acts now as the manager of Scheunenhof, collecting rent from the other companies located there. Once the old barn was rebuilt and the surroundings were cleaned up, new companies were setup in the compound. They are under the supervision of the AGRONA company, but operate independently. The innovative center became a multifunctional compound that combines several projects and cooperative members. Figure 1 gives an overview of the three main objectives and its players. Since its foundation in 1996, the Scheunenhof center created 93 jobs (see figure 3) according to the management. Two thirds are regular full time employees. The other third is under the second labor market and receives support

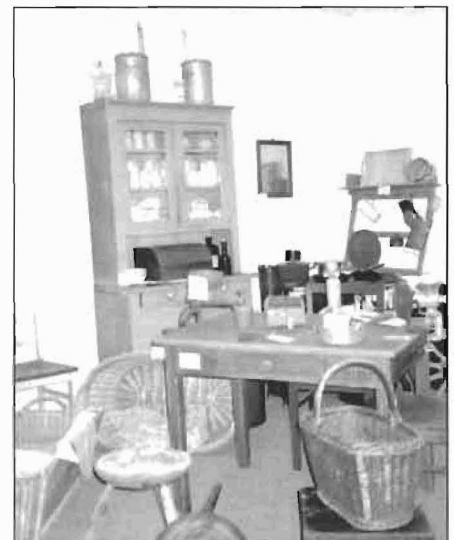


Image 12: Antique furniture

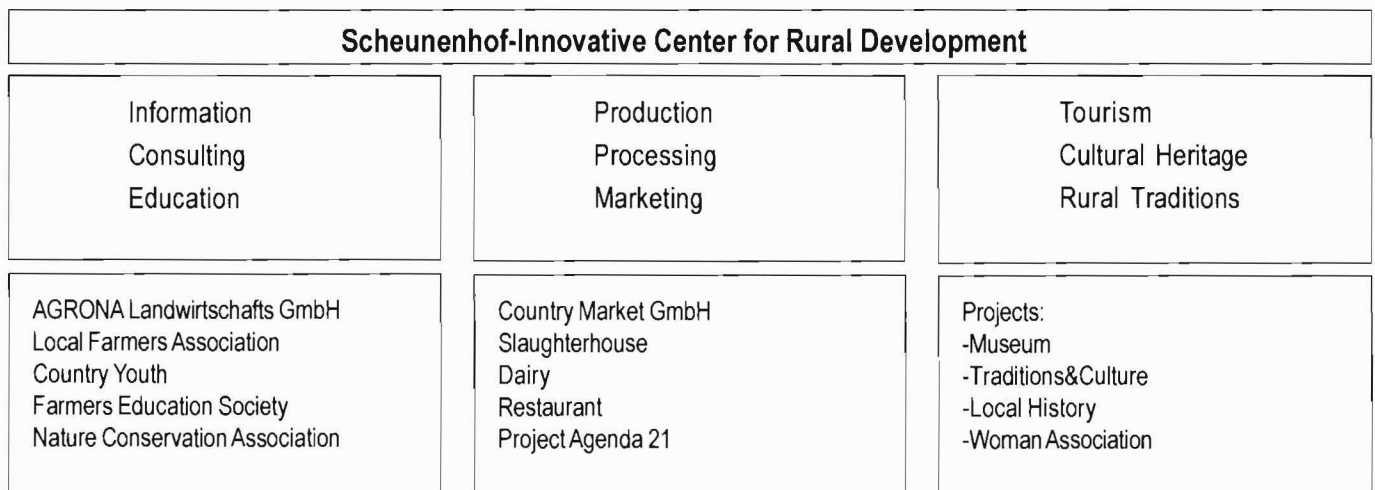


Figure 1: Administrative structure of Scheuenhof

from the German Labor Institute (Bundesanstalt für Arbeit) and the employer pays only 10% of their salary. They work mostly in projects that are not self-sustainable and require financial support. The botanical garden, with 5 employees from the second labor market, is one example.

Figure 4 gives an overview about the financing of Scheuenhof and its three biggest companies: AGRONA Landwirtschafts GmbH, the dairy and the slaughterhouse including the butcher. In the beginning phase Scheuenhof received funding from the European Union Program LEADER II (1994-1999) that supports rural development. Landkreis Nordhausen is one of the target areas of LEADER and it belongs to the Objective 1 Region, which includes areas lagging behind in development.

Besides EU funding Scheuenhof obtained financial assistance from Thuringia's Ministry of Agriculture and local governmental agencies. The funding was mostly used for the construction of the buildings (slaughterhouse, restoration of the old barn) and the technical equipment (machinery for

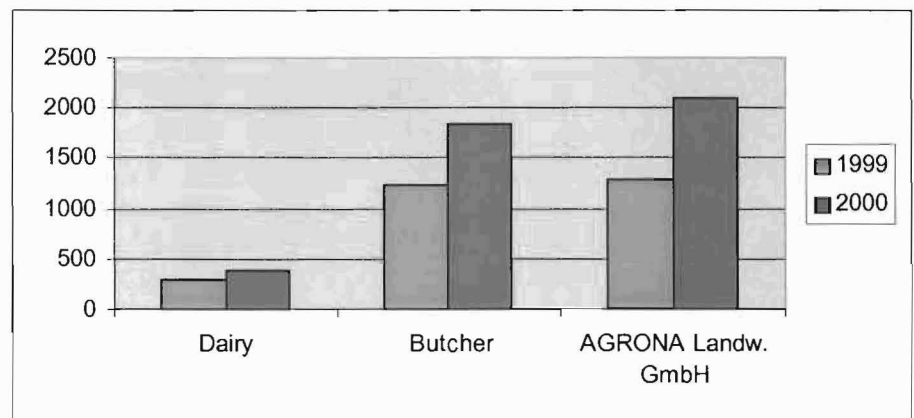


Figure 2: Sales in the years 1999 and 2000 in 1,000 DM

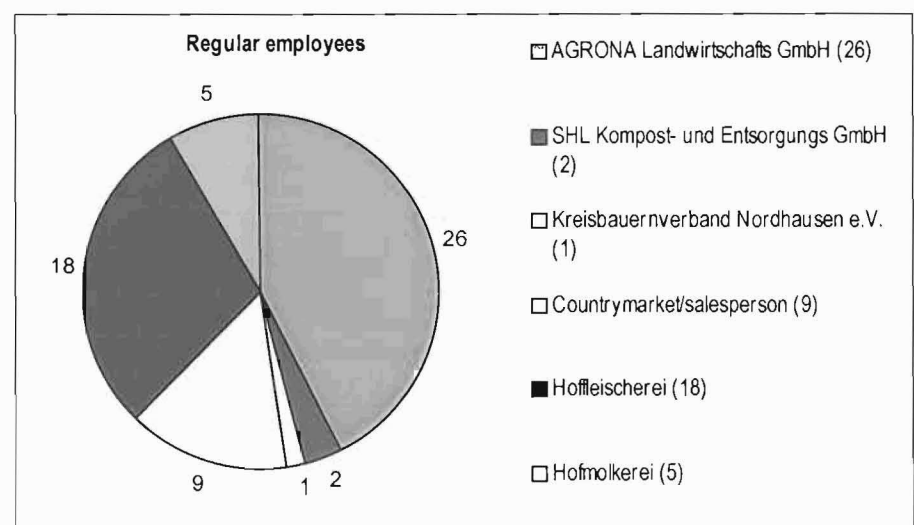


Figure 3: Job creation at Scheuenhof - Number of regular employees per company



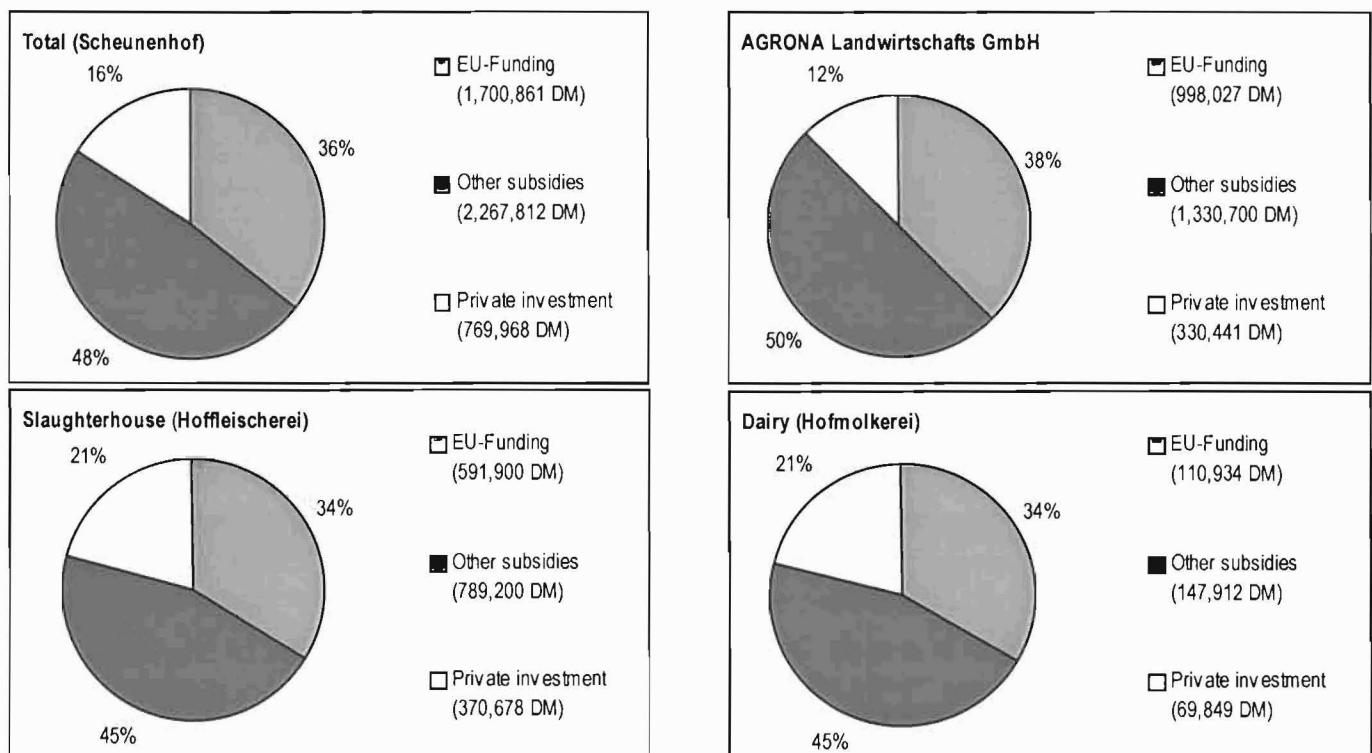


Figure 4: Financing and funding of Scheunenhof (Shares in %)

the dairy and the slaughterhouse). The smallest part of all expenditures came from private capital.

Financial support was only given in the beginning phase. At a later stage the companies began operating on their own. According to the management AGRONA Landwirtschafts GmbH, the butcher and dairy operated self-sustainable, only five years after their establishment. Figure 2 presents an overview of the sales from 1999 to the present and a significant increase in sales between 1999 and 2000 can be noted.

### Development Potentials and Future Plans of Scheunenhof

In the near future, an additional old barn located in the Scheunenhof area will be restored and used as an indoor museum. Furthermore, the company AGRONA has begun to design the outdoor facilities. The yard will be converted in traditional farm style.

The attic floor in the house besides the main building will be reconstructed as a hotel that can provide 60 beds for tourists and seminar participants. Additionally, AGRONA has plans to invest more in tourism and the company wants to extend the area of Scheunenhof and has been negotiating with the landowner. The area situated north of Scheunenhof borders a lake of 60 ha (see image 13) and offers a good location for water sports as well as other leisure and recreation activities.

### Problems

Scheunenhof does not seem to have any serious problems – only slight difficulties.

The garden was destroyed several times in some parts and plants and flowers were stolen. The gardener in charge said that the area, which is open during the night is a target for vandalism. In addition, in the exhibit floors several artifacts disappeared and for that reason a new museum, with a security system, will be built.

Another problem is the difficulty with



Image 13: The lake - provisional site for tourism and recreation

the placement of advertising signboards on the highway (see image 16). Under German law big signboards are considered as a special construction and require a permit by the local building authority. The permit is difficult and costly to obtain. Currently it is rather difficult to find the Scheunenhof site, which is certainly not acceptable for a tourist project.



Image 14: Playground for kids



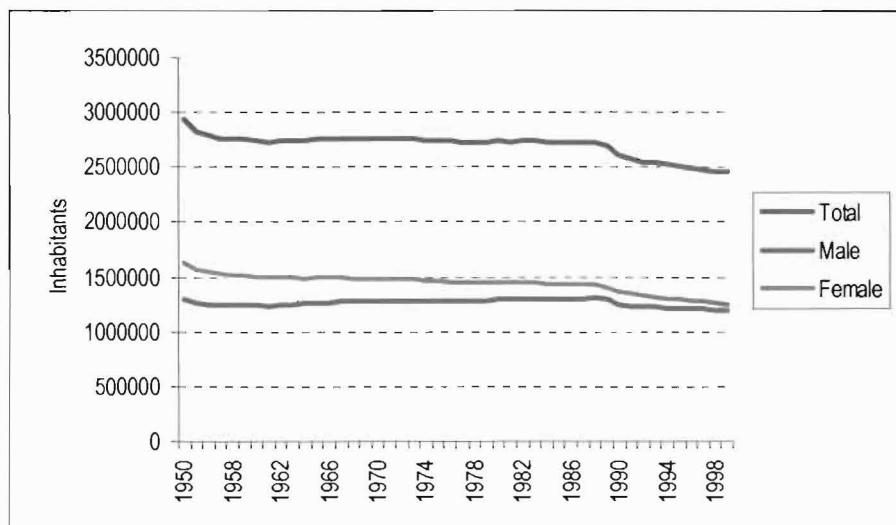
Image 15: Entrance of the main building



Image 16: Advertisement for the restaurant

### Selected statistical data for the area

Figure 5: Change of population in the Federal State of Thuringia between 1950 and 2000



Source: Thüringer Landesamt für Statistik, Erfurt, Germany

In the Federal State of Thuringia the population has greatly declined by about 500,000 inhabitants in the last 50 years from 2,932,242 people in 1950 to 2,449,082 in 1999. It is remarkable in figure 5 that after 1990 there was a significant decline in the population. One of the reasons can be the socio-economic situation in Thuringia during this time. In 1989 after Germany's unification, the economic situation in Thuringia, formerly part of East Germany, worsened remarkably and many people left their homes and moved to West Germany in the hope of finding new work and a better life.

Table 1: Demographic data for the political district of Landkreis Nordhausen

	1994	1995	1996	1997	1998	1999
Number of communities	55	55	46	38	38	37
Area in km <sup>2</sup>	710.9	710.9	710.9	710.9	710.9	710.9
Population (total)	102,405	101,870	101,309	100,743	100,112	99,355
Population (male)	49,698	49,580	49,436	49,288	49,001	48,612
Population (female)	52,707	52,290	51,873	51,455	51,111	50,743
Population density (inh/km <sup>2</sup> )	144	143	143	142	141	140

Source: Thüringer Landesamt für Statistik, Erfurt, Germany

In fact, Landkreis Nordhausen lost (from 1994 to 1999) approximately 3,000 inhabitants (compare table 1) that is a population decline of 3%. Furthermore, the aging of the population is remarkable. As one can see in table 2 the number of young people (less than 15 years old) declined from 16,9% in 1994 to 13,6% in 1999, in contrast the number of people over 65 years old increased from 15,2% to 17,1% in the same period. The aging of the population presents a typical problem in Germany.

Table 2: Age structure in Landkreis Nordhausen in %

	1994	1995	1996	1997	1998	1999
0 - 15 years	16.9	16.1	15.4	14.6	14.1	13.6
15 - 18	3.9	4.2	4.3	4.4	4.3	4.2
18 - 25	7.9	7.6	7.6	7.8	8.2	8.5
25 - 35	15.2	15	14.7	14.2	13.5	12.9
35 - 65	40.9	41.4	42	42.8	43.4	43.8
over 65	15.2	15.6	15.9	16.2	16.5	17.1

Source: Thüringer Landesamt für Statistik, Erfurt, Germany

**Table 3: Change of population through births and movings in the Landkreis Nordhausen**

	1994	1995	1996	1997	1998	1999
Birth per 1000 inhabitants	4.9	5.5	6.2	6.8	7.0	7.0
Deaths per 1000 inhabitants	11.7	11.7	11.5	11.4	10.7	11.7
Move ins per 1000 inhabitants	37.6	38.1	39.2	39.3	38.2	40.8
Move outs per 1000 inhabitants	39.4	37.2	39.4	40.3	40.8	43.7
Change of population per 1000 inhabitants	-8.5	-5.3	-5.5	-5.6	-6.3	-7.6

Source: Thüringer Landesamt für Statistik, Erfurt, Germany

**Table 4: Economic structure of the Landkreis Nordhausen**

	1994	1995	1996	1997	1998	1999
<b>Agriculture</b>						
Number of farms	179	211	201	217	219	204
Area in ha	36,230	36,526	36,441	36,642	36,554	36,746
<b>Mining and Production</b>						
Number of companies	44	44	48	49	53	55
Employed person	4,201	4,245	4,258	4,243	4,660	4,782
Sales in Mill. DM	1,286.0	1,219.9	1,535.5	1,561.6	1,657.4	1,809.4
<b>Construction</b>						
Number of companies	50	55	55	58	54	47
Employed person	3,044	3,069	2,697	2,536	2,134	1,916
Sales in Mill. DM	400.5	384.1	357.7	350.5	348.4	300.3

Source: Thüringer Landesamt für Statistik, Erfurt, Germany

Since 1994 the demographic situation in the political district of Nordhausen improved slowly; as seen in table 3 the move-ins and move-outs for the area were almost in balance in recent years. Furthermore, table 3 shows a slight increase

in the birth rate in the last years, despite the fact the population is decreasing continuously. Agriculture represents the most important economic source of income in the area. The number of farms increased slightly, but the size of the agricultural

**Table 5: Farm sizes of Landkreis Nordhausen**

Category	Number of farms	Area in ha
under 2 ha	36	24
2-10 ha	61	265
10-20 ha	19	285
20-50 ha	24	859
50-100 ha	12	838
100-1000 ha	40	12401

Source: Thüringer Landesamt für Statistik, Erfurt

area is almost constant since 1994 in total, it increased only about 500 ha. Salt production and mining companies were one of the major employers in Nordhausen. After Germany's unification the mining industry declined, but has stabilized in the last few years (compare table 4). Several new companies were established, the sales in the mining and production sector increase as well as the number of employees. In contrast, the construction sector is facing a continuous slow down. The sales decreased by about 100 Mill. DM from 400.5 Mill. DM in 1994 to 300.3 Mill. DM in 1999. That effected the labor market and the employment numbers decrease about one third in the construction sector.

Table 5 shows that farm sizes are relatively large, 52 farms are over 1000 ha. The reason is that farmers are still working in cooperatives, as it was in East Germany, and the fields, according to the size of the cooperatives, are big. Only a few farmers have started private enterprises because of hard competition and the fear of taking risks for investments.

Table 6: Unemployment rate for the political district of Landkreis Nordhausen

	1996	1997	1998	1999
Unemployment in %	17.0	20.4	18.3	-
Total	193,896	232,004	209,225	-
Men	82,173	101,526	93,936	-
Men in % of total	42.3	43.7	44.8	-
Women	111,723	130,478	115,288	-
Women in % of total	57.6	56.2	55.1	-

Source: Thüringer Landesamt für Statistik, Erfurt, Germany

Unemployment is very high in the district of Nordhausen and the federal state of Thuringia, reaching 18.3% and 21% respectively in 1998. There are more unemployed women than men because women generally have more problems finding jobs in rural areas. In Nordhausen, there are approximately 15% more unemployed women than men while in Thuringia there is only a 10% difference.

Table 7: Unemployment rate for the Federal State of Thüringen

	1996	1997	1998	1999
Unemployment in %	18.7	21	21	18.7
Total	8,660	9,693	9,693	8,649
Men	3,849	4,441	4,442	3,881
Men in % of total	44.4	45.8	45.8	44.9
Women	4,811	5,252	5,251	4,768
Women in % of total	55.6	54.2	54.2	55.1

Source: Thüringer Landesamt für Statistik, Erfurt, Germany

Figure 6: Visitor numbers per quarter in the country market of Scheunenhof

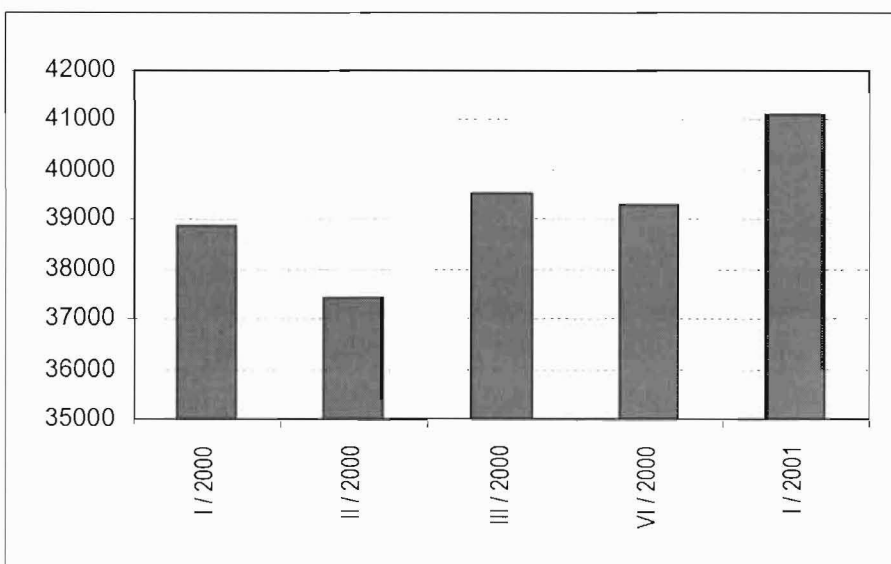


Figure 4: Visitors numbers per quarter in the country market

Figure 6 shows the country market's visitor statistics for 2000 and the first quarter of 2001. Between the first quarter of 2000 and the first quarter of 2001, the number of visitors to Scheunenhof increased from some 39,000 to more than 41,000.

### Evaluation of the project

#### Human Factors

Scheunenhof was initiated by the AGRONA Landwirtschafts GmbH Company in 1996. Since its foundation the project has grown; new companies such as the Hoffleischerei butcher, the dairy as well as a restaurant have been established and new initiatives and associations were founded. All companies at Scheunenhof are tied together through a strong network that includes cooperation with local farmers. The project created a notable number of new jobs, in a region with one of the highest unemployment rates in Germany, although one third of the jobs are in the second labor market (financed by the German Labor Institute). Scheunenhof has contributed to the economical development of the Landkreis Nordhausen. Additionally, the project has had a positive impact on the local agriculture by supporting farmers and buying their products.

Scheunenhof is well known in the region and its restaurant and country market continue to attract many customers. Despite the BSE and Food and Mouth Disease crises, sales from the butcher have increased (see figure 2). People are more health conscious and praise the good and fresh quality of the meat products at Scheunenhof; they are also willing to pay higher prizes for certified quality. A growing number of visitors (see figure 4) result from the various attractions in the area and Scheunenhof's good reputation. Presently, mainly local or regional tourists have visited Scheunenhof. In order to increase the

numbers of visitors at Scheunenhof accommodation facilities are necessary and marketing strategies are needed outside the borders of the district of Nordhausen.

While the economic development impact was probably only small, the project has certainly improved the quality of life in the region.

#### Resources and Environment

Landkreis Nordhausen is recognized as a former mining area focusing on salt and gravel mining. Most of the open mines are flooded, as is the case of the lake besides the Scheunenhof compound. AGRONA; Scheunenhof's manager, intends to acquire the lake area in order to establish a recreational site.

Nature resource management and environmental issues are of great importance to the Scheunenhof project. The companies at Scheunenhof operate in an environmentally friendly way (i.e. using of recyclable materials, encouraging farmers to move to organic food production). Furthermore, new initiatives such as the historical botanical garden and the Green Class Room Project help increase the environmental awareness of the local population. In general, Scheunenhof can be seen as a project with a positive impact on the environment in a long run.

#### The Economic Viability

Scheunenhof's budget is composed of several financial sources according to each individual project (compare Figure 4 and Chapter "Managing Scheunenhof - Structure, Budget and Administration"). The main part of the investment comes from public re-

sources such as EU subsidies (LEADER II program) and from the national government. The Ministry of Agriculture of the Federal State of Thuringia and the district Landkreis Nordhausen have supported Scheunenhof financially in its implementation phase. The total investment is estimated to be approximately 4,739,000 DM (2,423,012.22 EUR) of which 1,700,000 DM (869,196.20 EUR) came from the EU; 2,267,000 DM (1,159,098.69 EUR) was obtained from other public funding and 772,000 DM (394,717.33 EUR) came from private investment. Few years after the initial funding most of the companies at Scheunenhof became self-sustainable. However, not all activities, such as the botanical garden and the planned museum, can operate successful without public financial support. These projects are subsidized by the regional government, and the German Labor Institute (Bundesanstalt für Arbeit) contributes to the labor force costs of these projects. However, the project's long-term economic viability can be evaluated as positive.

#### Political Factors

During the creation process of Scheunenhof the AGRONA Landwirtschafts GmbH Company was the main player and driving force. AGRONA was formed by several independent associations; such as the local and regional farmers association, the Südharzer Trade Company and the SHL Recycling Company. Political issues were of minor importance, however the project has been integrated in the regional development plans and re-

ceives assistance from the Ministry of Agriculture. Scheunenhof, as an innovative center for rural development, has become one of the most successful projects in Nordhausen and the regional government promotes it as a prime example for successful local development.

### **The Project's Technology Potential**

The project does not use special technology. We could imagine that modern communication technology (Internet) could be used more efficiently to market the Scheunenhof project and handle bookings. Perhaps some of the local farm products could be also marketed by an Internet-Shop.

### **Summary**

The project reflects innovative actions and has had a positive impact on the rural development of the Landkreis Nordhausen. Integrated approaches and multisectoral cooperation between the project partners permit a wide range orientation at Scheunenhof, from direct marketing of local farm products to environmental education and the preservation of cultural heritage. In addition to the prosperous marketing center, Scheunenhof has increased the economical condition of the area and supports local farmers. Through the creation of new job opportunities in a fragile rural area with high unemployment, the project reflects a positive

socio-economic impact. The growing number of visitors can be seen as an indicator that the project has been a success. Known as a nice place for excursions, dining and shopping Scheunenhof has improved the quality of life for the surrounding population. However, it is questionable whether the project will be able to attract visitors from outside the region.

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### Introduction

Estonia has a high potential for tourism. It plays an important role in the development of the service sector and has already led to the creation of new employment opportunities.

The Viljandimaa Tourist Association is a non-governmental organization (NGO) that has committed itself to the development of tourism in the Estonian county of Viljandi. The NGO has already considerably contributed to the improvement of tourism through several activities, such as the setting up of five tourist centers in rural areas. One of those, the Olustvere Tourist Center is a good example of how the maintenance of cultural heritage can be combined with tourism in the development of rural areas.

### Description of the area

Situated in the center of Estonia, Viljandi is the third largest county in Estonia with a total area of 3,589 km<sup>2</sup> and split into 14 rural municipalities. With 62,336 inhabitants, it has a population density of 18 people per km<sup>2</sup> and is sparsely populated when compared to the European Union (EU) average of 115 inhabitants per km<sup>2</sup>. In fact, the whole of Estonia is sparsely populated with 34 inhabitants per km<sup>2</sup>.

The administrative center of the Viljandimaa Tourist Association is in the town of Viljandi, which has a population of 21,600 and is situated at the heart of the county. Over half of the total population of Viljandi County lives in rural areas. This is quite high when compared to other Estonian counties.

Forests, marshes and bogs mostly make up the western part of Viljandi, located on the Sakala Upland. The eastern side of the county borders on Lake Vortsjärvi, Estonia's biggest lake. Approximately 44% of the land is forested while 34% is farmland.

Agriculture has a long tradition in Viljandi. Estonia's leading agricultural school is in Olustvere, a municipality in Viljandi County. Local industries and commerce primarily engage in the processing of agriculture and wood products. Over the past years, the employment sector also benefited from improved tourist facilities.

### Background

In 1991, the Republic of Estonia declared its independence from the former Soviet Union. In the years that followed, the country faced deep structural changes. A new develop-

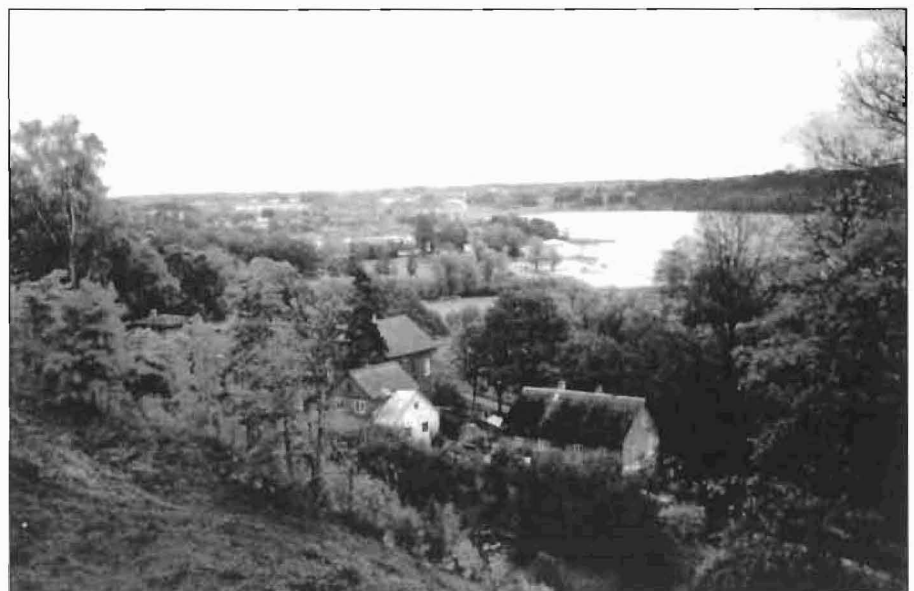


Image 1 View of Viljandi town





Image 2: Old castle wall in the park of Viljandi and view of the lake



Image 3: Old ruins in the castle park of Viljandi



Image 4: Restored bridge in the town park



Image 5: Tourist Information Center in Viljandi town

ment process began and a market system replaced the previous centrally planned socialist economy. The newly independent nation embraced free-market reforms and the country enjoyed rapid economic growth. In fact, Estonia seems to be in a good position to join the EU.

However, not all sectors benefited from this development. The agricultural sector changed dramatically and is facing serious problems. Instead of the 360 collective farms that existed during Soviet times, there are now approximately 6,000 farming enterprises (4,313 private farms, 1,218 share holding farms and 769 co-operative farms). Because many of these farms are quite small and not very productive, they will have problems competing in the EU common market. Estonia's agricultural sector contributes about 3.6% of the GDP, but has a share of 11.8% in the labor market.

Estonian tourism increased significantly over the last decade and has good future prospects. It contributed 5% of the GDP in 1994 and increased to 15% by 1998. Between 1993 and 1997, the number of foreigners visiting Estonia doubled from 1.3 million to 2.6 million. In spite of the high growth, Estonia's tourism sector remains small when compared to international standards. Nevertheless, Estonia enjoys 55% of the total tourism from the Baltic countries.

### The Viljandimaa Tourist Association

The Viljandimaa Tourist Organization was founded in 1997 in Viljandi town with the aim of developing tourism in the area. The NGO currently has 23 members including individuals and

businesses, as well as representatives from the county governments and the municipalities. Its major goals are: 1) the creation of new employment possibilities, especially in rural areas 2) the conservation of the area's cultural heritage 3) nature protection and landscape preservation.

The Viljandimaa Tourist Organization arranges meetings for its members to share ideas and develop co-operations. They also organize excursions to other parts of Estonia to visit tourism projects. This gives NGO members the possibility of learning from the experiences of others while gathering new ideas for their own tourism activities.

In a region where tourism is a relatively new industry, the Viljandimaa Tourist Association also offers courses on tourism-related issues. The courses range from the setting up of a new tourist enterprise to book-keeping and how to treat guests. These courses allow small rural entrepreneurs and farmers to acquire skills, while providing which may help them to generate a second income.

The Viljandimaa Tourist Association also acts as a consultant, advising locals on issues such as new ideas in tourism, on how to increase the numbers of guests and on how to obtain investment capital.

### Financing

Although exact financial data are not available, the Viljandimaa Tourist Association receives most of its financial support from the Estonian Ministry of Economics. The Viljandi County government also provides funding while the municipalities support local activities.

The NGO also receives money from

membership fees, which are quite high at 1,000 Estonian Crores (70 US\$) considering the average monthly household income of approximately 1,600 Crores. But despite membership fees and an additional income derived from events and other activities, the Viljandimaa Tourist Association cannot operate financially independent.

The Viljandimaa Tourist Association serves as an umbrella organization for several small tourism enterprises but does not benefit from their income. The profit earned by members through their tourism activities is not shared.

### Local Centers of the Viljandimaa Tourist Association

To contribute to the development of rural areas, The Viljandimaa Tourist Association created five local tourism centers in several municipalities of Viljandi County. The centers, which are managed by local residents, promote special activities such as cultural heritage, nature conservation and recreational events. Some of the centers are described below (taken from a Viljandimaa Tourist Association brochure):

#### Heimtalimanor Complex

*Heimtali manor was founded on the slopes of the Raudna Valley. The manor estate was built in the 19th century and includes a neoclassicist manor house, a stable with a courtyard and a distillery. The beautiful Heimtali Park was created in the second half of the 19th century by the Sievers family. Today, it serves as the home of textile designer Anu Road. Folk art exhibitions also take place in the manor house.*



Image 7: Olustvere manor house

#### Karanski-Nuia

*Karksi-Nuia is a small town in the south of Viljandi and on the slopes of the picturesque valley. The Karksi fort was the site of an ancient stronghold. In the mid-14th century, the stronghold was surrounded by a Stonewall. Only the northern and the eastern walls have remained. The Karksi Lutheran Church and a baroque chapel from the 17th century are of historical interest to visitors. The beautiful Linnaveski Lake offers fishing and swimming possibilities and serves as a recreational destination.*

#### Olustvere Manor House and Park

*The Olustvere manor complex was built during the "Jugendstil" era. It is surrounded by a park in an English landscape design that serves as a botanical garden hosting old and rare tree species. Presently, the tourist information center is situated in the main building, which was restored after the Soviet*

*era. The Olustvere manor house provides a nice atmosphere and excellent catering facilities for various events such as weddings, seminars and family feasts.*

#### Soomaa National Park

*Soomaa National Park was created to protect the biggest Estonian mires, valley forests and flooded meadows. The area of the national park is 370 km<sup>2</sup> of which two thirds of the protected area is located in Viljandimaa. The protected area has river floods that are unique in Europe. Native animals of Soomaa are the lynx, wolf, brown bear, elk, wild boar, roe deer and otters. 160 bird species have*



Image 8: Entrance to the manor complex in Olustvere



Image 9: Big hall inside the manor house

*been counted, including several rarities such as the black stork, the golden eagle and the crane.*

### Advantages and Difficulties of Tourism in Viljandi

Since the founding of the Viljandimaa Tourist Association, the number of tourists in the area has grown steadily (compare figure 2 and table 6). The Association's activities have contributed to the improvement of the area's tourism infrastructure. For example, the castle was restored, information signs were posted (see image 6) and new hotels were opened.

A big attraction in Viljandi is the annual summer folk festival, organized since 1993 by the Viljandi College. The event became increasingly popular and, in 2000, attracted over 17,000 visitors from Estonia and abroad.

Although tourism has improved since Estonia's independence, the sector still lacks financial resources. Another problem is that the local population

is generally very reserved and guarded against new projects and ideas.

### Local Tourist Center: Olustvere Manor House

#### History of Olustvere

Olustvere is a small village with less than 500 inhabitants in the northern part of the Sakala Uplands and approximately 20 km north of Viljandi town. It is famous for its 16<sup>th</sup> century manor complex that spreads over 20 hectares and includes several buildings as well as a spacious English-style park. In the late 19<sup>th</sup> century, a watermill, a distillery and several stables were constructed while the manor house was added in the 20<sup>th</sup> century.

The Olustvere Manor became a state farm in 1918 before hosting the country's most famous agricultural school in 1920. Previously called the Alexander School, it changed its name to the "Rural Development and Tourism School" in the 1990s, following Estonia's split from the former Soviet Union. In 1996, the Olustvere Tourist Center based itself in the old manor house.

#### The Olustvere Tourist Center

Although the Olustvere Tourist Center is a member of the Viljandimaa Tourist Association, it operates independently with its office in the old manor house. The center has four permanent employees: the manager (Krista Kull), one guide, one cook and one housekeeper.

Horseback riding lessons and trips are arranged as well as excursions to the Soomaa National Park. The old manor house has exhibits on the local wildlife and also sells local handi-

crafts. Guided tours of the manor house and its surroundings are offered.

The Olustvere Tourist Center helps stage events such as seminars, conferences, weddings and other festivities in the manor house, providing catering for up to 120 people. Most guests are locals although companies from nearby Finland have also requested such events. Visitors from Germany and Sweden are also frequently hosted due to intensive cooperations between Viljandi and these countries.

The Olustvere Tourist Organization is self-sustainable and operates financially independent. Costs are covered with money earned through events and activities. Students from the "Rural Development and Tourism School" assist in the preparation of large events. The students work as volunteers as part of their training, allowing the Center to save a considerable amount of money.



Image 10: Former office of count Fersen, now used for seminars



Image 11: Entrance to the English garden in Olustvere

### Problems and Development Potentials of Olustvere

Although the Olustvere Tourist Organization is self-sustainable, it only generates enough money to survive and does not make a considerable profit. The budget does not allow for the financing of new projects, such as the restoration of buildings (distillery, old smithy) or the construction of additional guest rooms.

Manager Krista Kull said the Center could have more overnight guests if more accommodation were available. There are no other accommodation facilities in the vicinity and tourism on farms is an idea still in its infancy. The student hostel of the "Rural Development and Tourism School" accommodates guests during the summer holidays. The hostel, however, does not meet the quality standards of official guest quarters.

Due to its budgetary problems, the Olustvere Tourist Organization cannot afford to decorate the manor house with furniture that historically

matches the period of the building. Instead, second-hand furniture was purchased from a hotel in Viljandi.

Mr. Kull said the municipality's development is hampered by the mindset of the locals, who appear to have little interest in developing new ideas and creating new businesses. For example, the manor complex could offer several possibilities for new enterprises, such as the reconstruction of the distillery or the old smithy. So far, only a local handicraft shop has been established.

The Olustvere region, situated on the Pärnu-Tartu highway some 20 kms from Viljandi town, has good development potentials. Visitors on their way down to southern Estonia pass through Olustvere. Also, a lot of Finnish people own summer cottages in the nearby Pärnu region.



Image 13: Exhibit on natural wildlife of the Viljandi county in the manor house



Image 12: Old distillery and empty living building in the manor complex

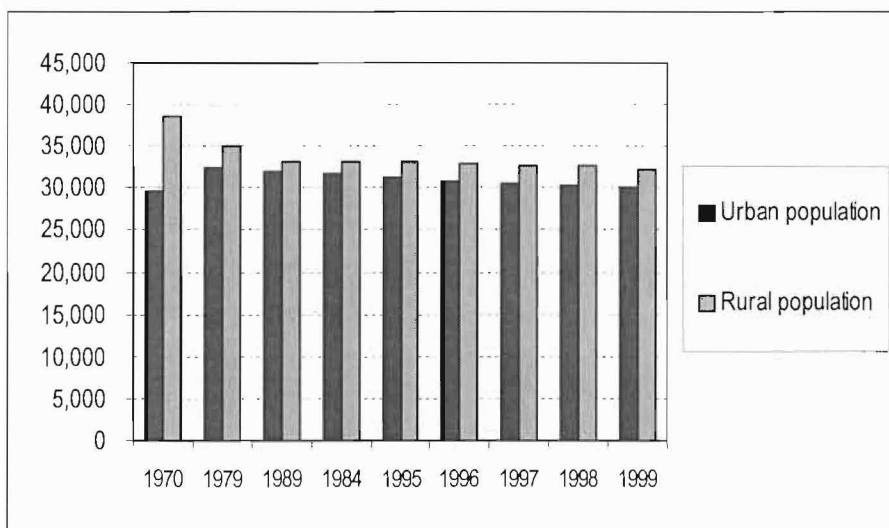
### Statistical Data

Table 1: Population change in Viljandi county from 1970 to 1999

	urban population			rural population			county population (total)		
	male	female	total	male	female	total	male	female	total
1970	13,219	16,403	29,622	17,585	20,911	38,496	30,804	37,314	68,118
1979	14,768	17,618	32,386	16,153	18,813	34,996	30,921	36,431	67,352
1989	14,476	17,552	32,028	15,741	17,453	33,194	30,217	35,005	65,222
1984	14,347	17,306	31,653	15,960	17,180	33,140	30,307	34,486	64,793
1995	14,210	17,117	31,327	15,931	17,119	33,050	30,141	34,236	64,337
1996	13,987	16,906	30,893	15,849	17,078	32,927	29,836	33,984	63,820
1997	13,848	16,741	30,589	15,772	16,935	32,707	29,620	33,676	63,296
1998	13,645	16,566	30,211	15,801	16,770	32,571	29,446	33,336	62,782
1999	13,560	16,467	30,027	15,758	16,551	32,309	29,318	33,018	62,336

Source: Population Register, Viljandi County Yearbook 1999

Figure 1: Comparison of the population change in Viljandi county from 1970 to 1999 in rural and urban areas



Source: Population Register, Viljandi County Yearbook 1999

Table 2: Migration in Viljandi county in 1998

Immigration			Emigration			Net migration		
Males	Females	Total	Males	Females	Total	Males	Females	Total
293	314	607	396	476	872	-103	-162	-265

Source: Population Register, Viljandi County Yearbook 1999

Table 1 and figure 1 show a steady decline in the population of the Viljandi county over the past 29 years. The total county population dropped from 68,118 inhabitants in 1970 to 62,336 inhabitants in 1999. In rural areas, the population sank by about 6,200 from 1970 to 1999, while in urban areas the number of inhabitants grew slightly during the same period.

Additionally, table 1 shows a high gender imbalance: there are more women than men living in the Viljandi county. Indicators for the population decline include decreasing births that lead to a strong natural population decline, while 558 children were born in 1998 922 people died – so the population declined by about 364 persons.

**Table 3: Indicators of natural population change in Viljandi county in 1998**

	Births			Deaths			Natural Increase		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
<b>Total in Towns</b>	131	128	259	188	204	392	-57	-76	-4
<b>Total in Rural Municipalities</b>	150	149	299	250	280	530	-100	-131	-231
<b>Total in the County</b>	281	277	558	438	484	922	-157	-207	-364

Source: Population Register, Viljandi County Yearbook 1999

Table 3 shows the indicators for the natural population change in 1998. The numbers are negative for rural and urban areas in the Viljandi County. However, in the rural municipalities, the natural decrease of 231 inhabitants is significantly higher than in the towns with a decrease of only 4 inhabitants. The population decline in rural areas is much higher than in the

towns. Furthermore, the county of Viljandi has a high out-migration, mainly to the capital Tallinn. Table 2 presents the migration numbers for 1998 and shows a negative net migration rate of approximately 0.4 %. Table 4 presents the age structure of the population in Viljandi in 1999 (divided by urban and rural areas). The statistics show that the number of

young people in rural areas is slightly higher, which is a surprising fact. It is remarkable that only 7.5% of women between 16-54 live in the countryside while 25.7 % live in towns. In contrast, 29.1 % of the men between 16-59 years live in rural areas.

**Table 4: Age structure of the population in 1999**

	Male						Female					
	0-15		16-59		60+		0-15		16-54		55+	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
<b>Towns</b>	2,878	10.2	7,605	26.9	2,210	7.8	2,826	10.0	7,694	27.2	5,069	17.9
<b>Municipalities</b>	4,070	12.2	9,733	29.1	2,499	7.5	3,693	11.0	7,977	23.9	5,424	16.2
<b>Total County</b>	6,948	11.3	17,338	28.1	4,709	7.6	6,519	10.6	15,671	25.4	10,493	17.0

Source: Population Register, Viljandi County Yearbook 1999

Table 5 compares the land use in Viljandi with that in the European Union. The numbers indicate that farmland covers 34% of the total area in Estonia, which is 10% less than in the EU. However, Estonia is rich in forests, and wooded areas cover 44% of the total land. This is considerably higher than the EU average of 32%.

**Table 5: Land use in 1999 (in % of total area)**

	Viljandi Country	EU 15
<b>Farm land</b>	34	44
<b>Wooded areas</b>	44	32
<b>Other uses</b>	22	24

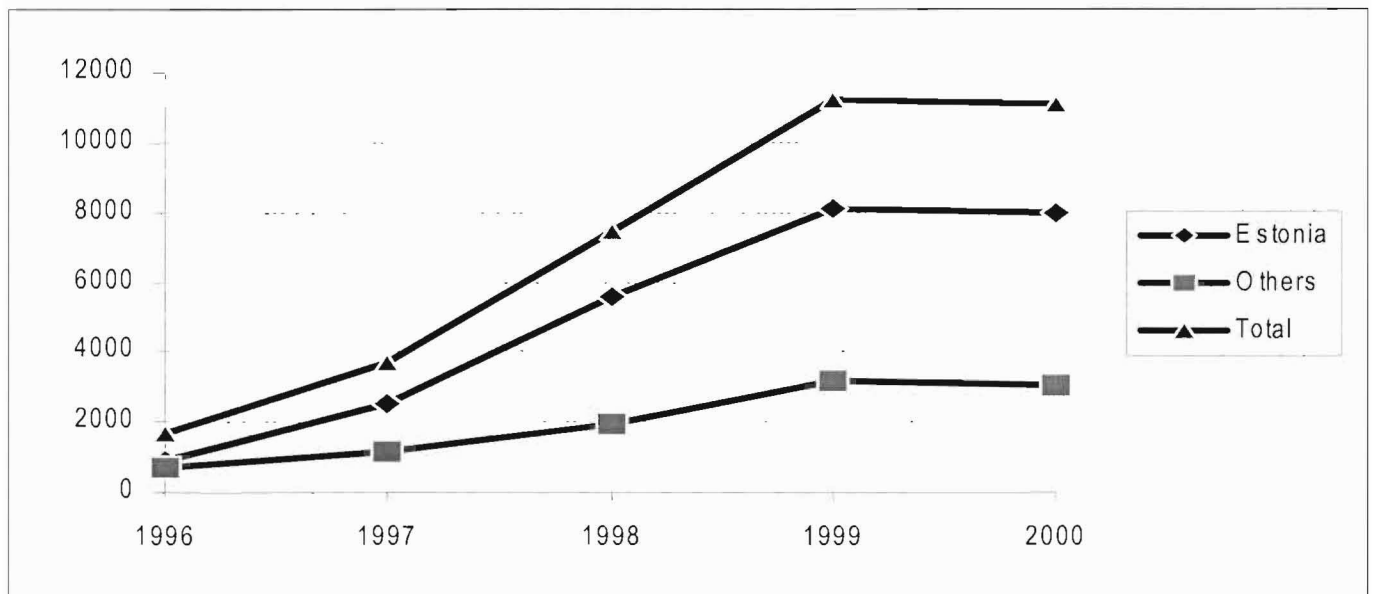
Source: NORDREGIO Database

Table 6: Visitors in Viljandi county from 1996 to 2000

	1996	1997	1998	1999	2000
<b>Estonia</b>	940	2551	5562	8086	8006
<b>Finland</b>	306	632	988	1382	1399
<b>Lithuania</b>	12	28	91	109	123
<b>Latvia</b>	4	8	25	19	64
<b>Germany</b>	133	189	246	486	460
<b>Russia</b>	214	167	178	446	423

Source: Viljandimaa Tourist Association

Figure 2: Comparison of Estonian and foreign visitors in Viljandimaa



Source: Viljandimaa Tourist Association

In Table 6 and Figure 2 the situation in the tourism sector is analyzed by the number of visitors. The data is provided by the local tourism office in Viljandi and shows only the number of guests visiting the center. Most visitors are from Estonia, followed by Finnish tourists. Viljandi also receives a remarkable amount of German

tourists, which relates to the partnerships with German towns. In general, the tourism sector is growing and the numbers of overnight guests has increased over the last years.

### Evaluation

#### Human Factors

The Viljandimaa Tourist Association was created by a group of local people from Viljandi to promote tourism in the area. To give their initiative official status, they founded an NGO in 1997. The Association created local tourist centers in Viljandi County and established a network in the tourist sector - which included private individuals, small and medium tourism enterprises, municipality and county government representatives as well as other public institutions.

Although the local tourist centers operate financially independent, they are NGO members and can receive managerial support and guidance. The Olustvere Tourist Center serves as an example of successful local development.

The Viljandimaa Tourist Association offers training, seminars, excursions and other tourism related activities, thus increasing the level of education of its members. They helped improve the infrastructure of the Viljandi County and created new jobs in tourism. The Association was a driving force behind the area's regional development and helped lift the standard of living.

#### Resources and Environment

The Viljandimaa Tourist Association seeks to conserve the natural beauty of the landscape in the County, which is of vital importance for the growth of tourism.

They promote nature tourism and created a local tourist center at the Soomaa National Park, which covers approximately two thirds of Viljandi County (370 km<sup>2</sup>). The pro-

tected area attracts an increasing number of foreign visitors and has the potential of becoming a major tourism destination. Organized guided tours and excursions help increase the environmental awareness of locals and foreigners. The drawbacks are limited accommodation facilities and a public transportation system that has to be improved and expanded.

The Viljandimaa Tourist Association also promotes the conservation of cultural heritage, such as the many old wooden buildings in the traditional style of the region. Various activities were initiated to preserve these structures, such as the restoration of the old manor house in Olustvere.

#### Economical Dimensions

The Viljandimaa Tourist Association is a non-profit organization financed from private and public sources. The budget includes member fees (1,000 EEK per year) and profit made through events and activities. However, the largest bulk of the budget comes from public funds provided by the Estonian Ministry of Economics and the Viljandi County government.

The Association acts as an umbrella organization for its members who are financed from private investments only. Although the situation for private tourism enterprises is difficult, the Olustvere Tourist Center manages to finance itself. Center manager Krista Kull is hoping for EU funding that would allow for investments in larger projects, such as the building of a guesthouse. Currently, the Center cannot finance a project as expensive as this.

It must be noted that the financial situation of most Estonian entrepreneurs cannot be compared to that of their

central European counterparts. An Austrian farmer usually does not have as many difficulties getting a loan as an Estonian farmer does.

#### Political Factors

The people of Viljandi County are the driving force behind the Viljandimaa Tourist Association. Local and regional government institutions are members of the NGO. Because of the strong ties between the association and the local political elite, projects from the Viljandimaa Tourist Association are included in local and regional development plans. Both partners benefit from the collaboration that has created a political environment for regional development in Viljandimaa.

#### The Project's Technology Potential

The Viljandimaa Tourist Association uses the Internet for advertising and promotional purposes. Some of the local tourist centers also have their own web sites. The Internet is still relatively new for many entrepreneurs in the rural areas of Viljandi County. The majority of the rural population does not have access to a computer. The NGO offered its members courses on the use of the Internet in tourism, but provided only theoretical knowledge that is currently inapplicable. Presently, the Viljandimaa Tourist Association takes care of all the advertising (web sites, brochures and catalogues for its members).

#### Summary

The Viljandimaa Tourist Association is a successful local initiative. It was founded in 1997 and has since become a well-established NGO. It initiated new projects, such as local



tourist centers in Viljandi County, and also created a network in the tourism sector between entrepreneurs and public institutions. The Viljandimaa Tourist Association contributed significantly to the development of the tourism sector. As an umbrella organization, it has strengthened networks and increased the organizational capacity of its members. In spite of economical difficulties and structural changes experienced in rural Estonia after the fall of communism, the Viljandimaa Tourist Association has improved the quality of life of its members and the local population.

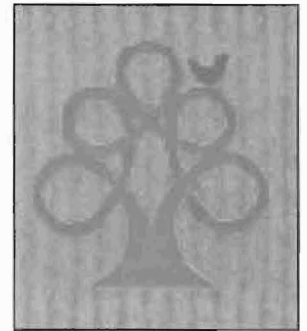
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**Introduction**

Founded in 1980 as a traditional conservation organization, the Somogy Provincial Association for Nature Conservation (SPANC) has evolved into a complex program. It involves activities that focus on sustainable development, land acquisition and preservation, habitat management and protection, job training, as well as the preservation of historic buildings and traditions. SPANC also provides employment, runs an education and visitors' center and organizes eco-tourism in the region.

Inner-Somogy is an economically lagging region in the center of Hungary with high unemployment and a large number of unskilled ethnic minorities (Roma and others). SPANC has created new job opportunities in the area through activities such as fish farming, the breeding of an ancient type of domestic animal and the operation of a central office. To create additional jobs for local inhabitants, SPANC has designed further plans to expand in eco-tourism and rural development, which will take advantage of the natural beauty and cultural diversity of the nature reserve in Hungary's Inner-Somogy region.

**History of SPANC**

The Hungarian Ornithological Society was founded in 1974. Six years

later, a branch of this society was established in the Somogy region by local conservationists. In order to increase environmental awareness, branch members also successfully set up nature conservation clubs in the regional capital of Kaposvár.

The Somogy group of the Hungarian Ornithological Society hosted the "Conference of Otter Conservation" of the IUCN (The World Conservation Union). The event allowed SPANC to liaise and set up co-operations with attending international Non-Governmental Organizations. The conference concluded, among other points, that the otters of the Somogy region were of vital importance for the survival of the entire European otter population. The conference recommended that government

organizations and NGOs co-operate to ensure their protection. This was a significant outcome for SPANC and the Somogy region.

SPANC organized a protest against the destruction of nature and drew public attention to endangered habitats through the media. As a result, the "Somogy Wild Water Program" was created to protect the wetlands of the Inner-Somogy – a region of vital ecological importance also beyond the Hungarian border. The program received financial support and advice from Austrian, German, Swiss and Dutch partner organizations.

To protect breeding sites for animals threatened by extinction, SPANC also developed a Black Stork (*Ciconia nigra*) and White-tailed



Image 1: View of the village Somogyfajsz

Eagle (*Haliaeetus albicilla*) Protection Program that was later carried out at national level.

In 1989, SPANC was listed as an independent legal entity – The Somogy Provincial Association for Nature Conservation. According to SPANC, the only way of protecting an area is by buying it. SPANC became the first organization in Hungary to purchase land for sheer nature conservation purposes when they bought the fishery ponds of Mesztegyő. With the financial help of its foreign partners (Austrian WWF, Swiss Ornithological Society, Euronatur, and the Ministry of Environment and Water Policy), SPANC acquired 180 ha of fishery ponds – which had been put up for sale in 1988.

In 1991, SPANC became administrators of the newly established Boronka Landscape Protection Area. The organization's task in this project was to introduce a management plan together with the local governments of the surrounding villages. The SPANC initiative led to the for-



Image 2: Information table at the entrance to the protected area



Image 3: Old barns and stables for the horses are traditional for the village Somogyfajsz

mation of the “Bridge over Boronka” Union, an association of local governments operating in the buffer zones of the protected area. At present, the Boronka Landscape Protection Area covers an area of some 8000 ha. In 1993, when Hungary was privatizing state property, SPANC acquired an additional 300 ha of ponds (Mike, Petesmalom and Csokonyavisonta). To share experiences gained on site conservation and management, SPANC organized international conferences on agriculture, nature conservation, and eco-tourism. It established relationships with international organizations and involved the local population in the implementation of SPANC site management tasks. The organization became a significant employer in the Somogy region and is still actively involved in several projects.

### Current focus and Organization

SPANC primarily seeks to promote sustainable rural development. Organization-owned properties include: four fishpond systems of approxi-

mately 500 hectares, one farming center for each fishpond system, 200 hectares of grassland and fields, a 1000 m<sup>2</sup> historic manor house and two other historic buildings. The organization has its headquarters in an old manor house in the small village of Somogyfajsz. The manor house, also known as Kund castle, is currently under restoration and is situated near vast grasslands, common to the Inner-Somogy region. SPANC is breeding some 54 Hungarian gray cattle, an ancient domestic breed, on these lands.

Nature conservation tasks are partially carried out with money earned from cattle breeding, fishing and eco-tourism. The organization seeks, through its activities, to preserve the natural and cultural heritage of the region. This also serves as a good basis for the promotion of tourism activities.

### SPANC Projects

#### The River Dráva Project

During Hungary's land privatization program, SPANC was able to acquire the most significant wetlands in

Inner Somogy. These wetlands connect the lake Balaton with the river Dráva. This chain of habitats functions as an ecological corridor between the two basins, providing the necessary flow of genetic information for sustaining biological diversity. The Dráva Project was a national and international success. SPANC is also in the process of planning a National Park with Croatia.

### The Fishpond Management Project

Although man-made, the fishponds became important habitats for local wildlife. Conservation methods used in fishpond areas differ from general methods used in fish farming. SPANC seeks to sustain and protect these ecosystems. The four SPANC-owned fishponds are essential parts of the ecological corridor between the lake Balaton and the river Dráva. For example, they serve as permanent feeding grounds for waterfowl, black storks, white-tailed eagles, otters and other wetland species.

Animals in Somogy lost their natural habitats when hundreds of natural ponds were drained following the regulation of waterways. Artificial ponds, constructed at the end of the 19th century, replaced natural ponds. Since purchasing the ponds in 1993, SPANC attempted to protect these habitats and provide vital basics such



Image 4: Rare animal species found a home in the protected wetlands

as breeding sites and food for the animals of the wetlands. SPANC helps provide food for waterfowls and otters by maintaining the right water levels and by protecting nesting sites. Fish farming is an important SPANC activity, with harvests of up to 300 kilogram per hectare. Income derived from fish farming is mainly used to cover management expenses, which, in turn, are re-invested into nature conservation. SPANC says the system will eventually become self-sustaining.

According to SPANC, fish farming and nature conservation are not necessarily conflicting undertakings. Furthermore, the ponds open new employment opportunities for local inhabitants and provide local markets with fresh fish.

### Sustainable Grassland Management

Over the centuries, pastures typical to the Inner-Somogy were created for animal grazing. At present, there is very little breeding of animals in the region. Parts of the former great pasturelands were ploughed resulting in low quality farmland that can no longer be cultivated. Other areas were afforested with acacia, black pine or poplar trees, which were unsuited to local conditions. Abandoned pastures became weedy and overgrown. Many botanical and zoological values characteristic to these wood and sandy grasslands, have disappeared or are in the process of doing so.

SPANC is trying to conserve ecological conditions in the remaining grasslands by reutilizing them. It plans to revitalize pastures by reintroducing the ancient Hungarian gray cattle.

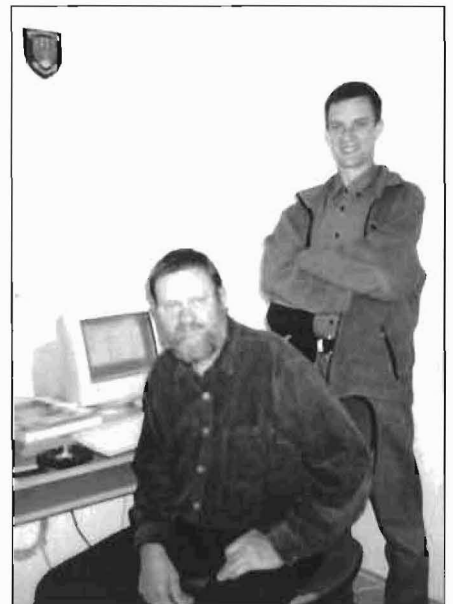


Image 5: One of the founders of SPANC and his son who works as translator for tourist groups

In December 1996, SPANC acquired 200 ha of grasslands near Somogyfajsz. It also bought nine gray cattle and initiated a breeding program. There are currently some 54 cattle grazing in these pastures.

### The Conservation of Cultural Heritage

SPANC not only protected a threatened animal species, it also bought and restored historic buildings. SPANC owns a manor house in Somogyfajsz that was built in 1872, as well as a 200-years-old school building. It also owns a 100-years-old school building in the neighboring village of Csokonyavisonta. The Somogyfajsz manor currently houses SPANC's nature conservation and information center and is also used for scientific and cultural programs. When reconstructing historic monuments, SPANC has sought to restore them to their original state.

In the tourism sector, SPANC provides visitors insight into the lives of shepherds, a traditional Hungarian



Image 6: Hungarian Grey Cattle grazing on the pastures

society whose production system was based on cattle breeding.

### The Development of Eco-Tourism and Environmental Education

Eco-tourism creates important job possibilities, especially in Somogyfajsz where 60% of the local population are unemployed. It is in the interest of the locals to protect the natural resources of their surroundings, if they want to attract visitors.

SPANC's efforts to protect the natural environment and cultural heritage created a good basis for tourism. The region's natural beauty offers a unique environment and especially attracts nature enthusiasts. SPANC, for example, organizes horse-riding tours through the wetlands as well as ornithological excursions. Additionally, the organization developed an environmental education program for schools.

The majority of visitors, however, have scientific interests. They are mostly ornithologists and students, both Hungarian and foreign, who carry out botanical and environmental research in the area.

Volunteers play an important role in SPANC activities as they carry out practical nature conservation tasks.

In July 1999, the "British Trust for Conservation Volunteers" (BTCV) helped in the management of the Petesalmi Reserve—Hungary's first otter park. Every summer, the "Round Square Schools" (Germany, Canada, England and Switzerland), send their students to the Somogy reserves to perform tasks such as the building of bird observation huts and the maintenance of trails.

SPANC also organizes international camps where visitors can learn about rare plant and animal species as well as practice nature conservation activities.

### Creating Employment Opportunities

The county of Somogy is one of the least populated in Hungary. Economically, it is highly disadvantaged and has high unemployment as well as large numbers of unskilled people. The conditions of the rural population worsened over the past decade following changes in Hungary's economy.

SPANC tries to include local inhabitants in its programs, attempting to interest them in conservation issues. The natural beauty of the environment increases the potential for tourism.

According to SPANC, "only surroundings that are nice will be attractive for visitors."

SPANC is also actively involved in programs for ethnic minorities. In 1996, SPANC launched a project called "Gypsies as land managers" with the support of the EU-PHARE-program. The project had two objectives: 1) more sustainable land-use and 2) better integration of gypsies into society.

New and permanent jobs in the management of SPANC-owned fishponds were created for gypsies, the main ethnic minority of the region, and other economically deprived families. SPANC claimed its efforts had been successful.

Locals are also employed in the restoration and construction of SPANC-owned buildings. SPANC also made the area attractive for Western Europeans by successfully liaising with international organizations.

### Problems

Like most nature conservation projects, SPANC relies heavily on external financial support. Although the organization attempts to cover parts of its costs through earnings obtained from fish farming, cattle grazing and eco-tourism, it is not enough for economic independence. According to SPANC's manager, the main factors of uncertainty faced by the organization are related to financing,



Image 7: Construction works beside the manor



Image 8: Restoration of the old manor complex

land acquisition, investments and maintenance work.

Although there are numerous sources for general and targeted subsidies in Hungary, they are difficult to obtain. SPANC, for instance, issued a proposal but was unable to attain support from SAPARD - a European Union program supporting rural development in accession countries. SPANC's management complained that 80% of its time is invested in finding financial support, while only 20% is spent on practical work and activities in nature conservation.

Winning the confidence and support of the population was also a difficult task and not all locals seem to have a positive attitude towards SPANC's activities.

Another difficulty was the integration of ethnic minorities, who lived in social isolation and were discriminated by the majority of the population. Although SPANC can help to improve their status, the situation remains challenging.

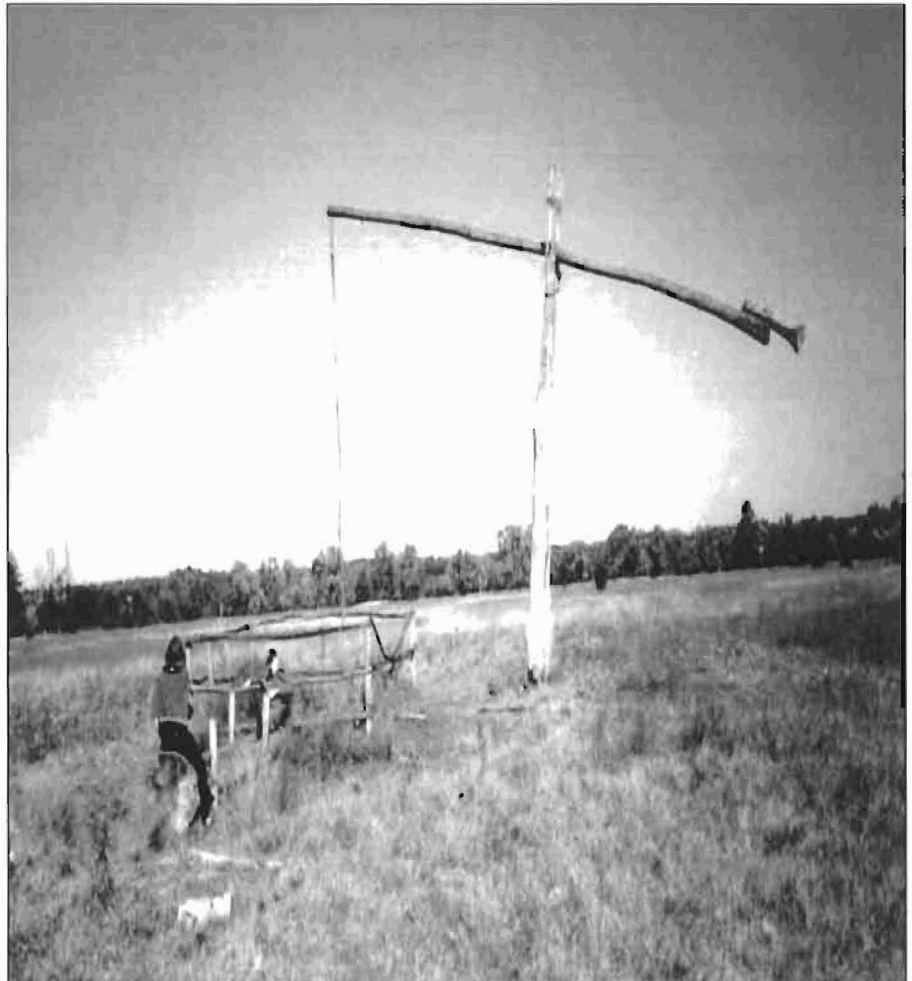


Image 9: Tourists visiting the protected area of SPANC

### Statistical Data

**Table 1: Migration balance for 1990 to 1999**

	Budapest	Other towns	Villages	Migration total
1990	3,624	-7,318	3,694	213,625
1995	-10,138	-7,950	18,088	210,909
1996	-11,083	-4,546	15,629	208,971
1997	-10,133	-3,528	13,661	219,837
1998	-11,583	-3,898	15,481	224,208
1999	-14,054	-2,648	16,702	220,185

Source: Hungarian Statistical Yearbook 1999

Table 1 shows an overview of the change in population through migration. Surprisingly, migration to Budapest and other towns decreased while out-migration is relatively high. However, the number of inhabitants in villages is increasing, signaling that people are not only moving to rural areas but also staying there. This is a stark contrast to the situation in other European countries where the opposite is occurring.

**Table 2: Population change in the District of Somogy, the County of Southern Transdanube and Hungary**

	Births per 1000 inhabitants			Deaths per 1000 inhabitants			Natural Population Change		
	1980	1990	1999	1980	1990	1999	1980	1990	1999
Somogy	13.5	12.3	9.6	15.3	15.2	15.6	-1.8	-2.9	-6
Southern Transdanube	13.7	12.4	9.2	14.1	14.3	14.5	-0.4	-1.9	-5.3
Hungary	13.9	12.1	9.4	13.6	14.1	14.2	0.3	-1.9	-4.8

Source: Hungarian Statistical Yearbook 1999

**Table 3: Age structure in the District of Somogy, the County of Southern Transdanube and Hungary in 1999**

	under 14	in % of total	15-29	in % of total	30-39	in % of total	40-59	in % of total	over 60 years	in % of total	Total
Somogy	56,627	17.1	72,250	21.9	41,234	12.5	93,543	28.3	66,616	20.2	330,261
Southern Transdanube	166,351	17.1	251,798	25.8	124,164	12.7	274,218	28.1	194,237	19.9	974,768
Hungary	1,717,234	17.1	2,268,097	22.6	1,278,946	12.7	2,804,755	27.9	1,974,183	19.7	10,043,224

Source: Hungarian Statistical Yearbook 1999

Table 2 shows birth and death rates for the district of Somogy, the county of Southern Transdanube and Hungary for 1980, 1990 and 1999. At all levels - local, regional and national - there is a significant deficit of births. In 1999, for instance, Somogy had almost 16 deaths per 1,000 inhabitants, while only 9.6 children were born. This is equivalent to a dramatic

natural population decline of 6%. This data also shows that the natural population decline in Somogy is somewhat higher than that in the Transdanube region (-5.3%). It is also higher than at national level (-4.8%).

Table 3 compares the age structure in the District of Somogy, the County of Southern Trans-Danube and Hun-

gary. The majority of the population is between 40 and 59 years old. The same applies to all three regions. Furthermore, there is an obvious ageing trend as the number of younger people is below that of people over 60 years.



**Table 4: Economic activity in 1999 (person\*1000) in the District of Somogy, the County of Southern Transdanube and Hungary**

	Employed	Unemployed	Economically active	Economically inactive	Unemployment rate in %
<b>Somogy</b>	116.0	11.4	127.4	127.4	8.9
<b>Southern Transdanube</b>	350.9	31.5	382.4	369.7	8.2
<b>Hungary</b>	3811.5	284.7	4096.2	3620.8	7.0

Source: Labor Force Survey Hungary

**Table 5: Protected areas in Hungary (in 1000 ha)**

	1980	1997	1998	1999
<b>National parks</b>	121.4	422.8	428.6	440.8
<b>Protected landscapes</b>	263.3	319.8	341.7	349.2
<b>Nature conservation reserves</b>	26.4	25.4	26.4	25.8
<b>Area of local importance</b>	18.9	35.8	36.0	33.9
<b>Total</b>	<b>430.0</b>	<b>803.8</b>	<b>832.7</b>	<b>849.7</b>

Source: Hungarian Statistical Yearbook 1999

**Table 6: Number of international tourists**

	1990	1996	1997	1998	1999
<b>Austria</b>	5,153	5,757	5,750	5,936	5,532
<b>Germany</b>	2,633	3,831	3,843	3,852	3,206
<b>Croatia</b>		5,430	5,020	3,470	3,263
<b>Romania</b>	9,015	4,365	3,914	4,197	3,581
<b>Slovakia</b>		4,192	5,199	5,497	4,438
<b>Others</b>	20,831	16,258	13,589	10,672	8,783
<b>Total</b>	<b>37,632</b>	<b>39,833</b>	<b>37,315</b>	<b>33,624</b>	<b>28,803</b>

Source: Hungarian Statistical Yearbook 1999

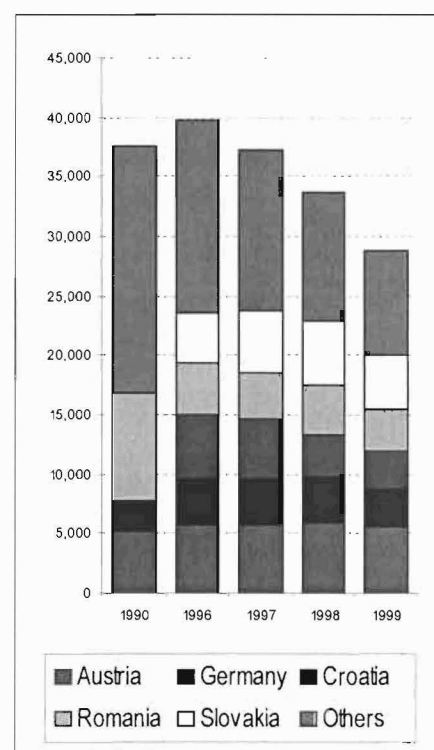
tion has gained more importance in Hungary over the past two decades. Over the past 20 years, the size of protected areas grew from 430,000 ha in 1980 to 849,000 ha in 1999. SPANC-owned areas are of local importance and have been extended considerably.

Table 6 and figure 2 shows the steady decline of international visitors after 1996.

Table 4 presents 1999 data on the economic activities in the district of Somogy, as well as in the county of Southern Transdanube and Hungary. The unemployment rate of 8.9% in the Somogy district is 1.9% higher than in Hungary as a whole. However, it has to be kept in mind that these figures are official and that the unofficial rates in Somogy are remarkably higher.

Table 5 shows that nature conserva-

**Figure 2: Visitor statistics**



Source: Hungarian Statistical Yearbook 1999

### Evaluation

#### Human Factors

SPANC can be considered a “bottom-up” venture. Locals from the Somogy region who were committed to environmental issues created SPANC. Since it was founded in 1980, SPANC has become one of the leading employers in the village of Somogyfajsz and its surroundings. Permanent SPANC staff members include: 1 president, 3 project managers, 1 accountant, 1 translator, 1 guide and 3 housekeepers and 3 cooks. The organization also hired people for fish farming and cattle breeding activities, as well as contractors for the restoration of the old manor complex. SPANC promotes nature tourism in the area and, in turn, helps farmers increase their income through this industry. SPANC also developed special employment programs for the local ethnic minority. Therefore, it contributed to the development of human resources at local and regional level.

#### Resources and Environment

The Somogy region enjoys large and intact ecosystems, as well as unspoiled natural areas such as ecologically valuable wetlands and pastures. SPANC seeks to protect these areas and preserve the original natural status of the environment. By buying several hundred hectares of land and converting them into protected areas, the organization guaranteed the preservation of ecologically valuable land. Important SPANC efforts include the creation of nature clubs and activities in environmental education. The organization’s work led to an increase

in the environmental awareness of the local population.

SPANC set up good relationships with national and international environmental organizations and is recognized by the IUCN (World Conservation Union). Plans for a transnational park with Croatia are in preparation.

SPANC committed itself to the preservation of cultural heritage through the restoration of old buildings including a manor house, where the organization’s headquarters are currently situated. This building also hosts an exhibition on the region’s history. SPANC also contributes to the conservation of traditional sources of income of rural traditions through the breeding of a rare and ancient species of gray cattle.

#### The Economic Viability

Like most nature conservation organizations, SPANC is unable to operate without financial aid. Although the organization generates money from activities such as fish farming, cattle breeding and small-scale tourism projects, it is not enough for financial independence. The majority of funds are either from small national sponsors or international donors. SPANC did not succeed in its efforts to obtain EU funding from the SAPRAD program.

It is difficult for an outside observer to understand how the organization can finance itself and carry out projects as expensive as the restoration of old buildings. However, SPANC said in an interview that somehow “it works” and that the organization survives by functioning the “Hungarian way” – meaning on a “day-by-day” basis.

SPANC is also at a disadvantage because it receives no financial support from the Hungarian government. In Hungary, municipalities get annual budgets from the states, which can be used on different projects. This support is, however, minimal. SPANC’s program is not considered a project of top priority in the municipality’s planning. As an environmental organization, SPANC has difficulties getting included in regional development plans that favor economical development. SPANC obviously has a very fragile economic basis and uncertain future.

#### Political Factors

SPANC is run by a small group of locals committed to the protection of the environment. This group includes the president, Tibor Tömösvary, and three full-time employees. The project did not receive support from the local municipality because nature conservation is not considered a priority in local and regional planning. However, SPANC activities are popular within the international nature conservation society. The project could become more important for the Somogy region’s development policy in the near future, but currently political support seems limited.

#### The Project’s Technological Potential

With the exception of the Internet, SPANC does not make use of new technologies for promotion and publicity matters. It could benefit from knowledge transfer concerning nature resource management issues. SPANC could also provide similar projects with professional information and experiences it acquired from its activities.

### Summary

SPANC's efforts in the conservation of nature and cultural heritage, combined with the creation of new employment, contributed to an overall improvement in the quality of life of the Somogy region. An intact environment is essential and SPANC's commitment to nature conservation can be considered an environmental and human success. But the project could expand and acquire more economical sustainability. However, this requires more effort and innovative ideas from all participants, and a much stronger political support at local, regional and national levels.

As an outside observer, we had the impression that SPANC somewhat lacks transparency in its various op-

erations. This seems to make it difficult for them to acquire outside funding, in particular from EU sources.

The project could clearly benefit from a more targeted operational approach. The range of activities, from fish farming and cattle breeding to historical site restoration, environmental protection activities and the promotion of rural tourism, seems to be rather broad.

However, we nevertheless believe that SPANC is an important initiative because it combines activities in nature conservation with projects to generate new sources of income. One of the great challenges of rural development is to find forms of nature conservation that are also economically viable for the local population.

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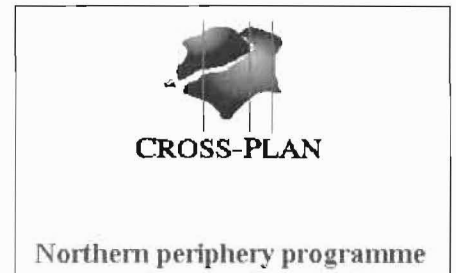
### Introduction

Crossplan was a European Union (EU) project set up to develop and investigate new approaches in participatory landscape planning in Finland, Sweden, Norway and Scotland. Crossplan sought to improve the economic situation in these areas, by finding new ways of involving the local populations in forestry and land-use planning. As a result, the project wanted to ensure the conservation of the natural environment and secure landscape issues. Created under the Northern Periphery Programme, Article 10 ERDP (European Regional Development Programme), Crossplan was carried out in the EU category areas of Objective 1, 6 and 5b. For the following report, local Crossplan partner organizations in Scandinavia were visited and interviewed.

### Objectives and Aims

Crossplan primarily focused on participatory landscape planning, with tasks specifically tailored to the needs of local project partners in the target areas. Tasks, therefore, varied from region to region.

Other goals named by Crossplan included: the integration of forestry



### Norway

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and nature conservation; tourism issues in landscape planning; the development of new knowledge for sustainable land-use planning; environmentally friendly tourism in peripheral areas; and the exchange of know-how between different interest groups.

To achieve these goals, the follow-



Image 1: Part of the Crossplan project area in Norway



Image 2: Minna Komulainen, Finland - International coordinator

ing activities were created: the development of new models for landscape planning and forestry; meetings, workshops, conferences and seminars; interviews and case studies in local project areas; cooperation between project participants as well as practical guide-

lines on landscape management in rural areas.

### Organization and Timetable

Finland's University of Oulu established Crossplan and was responsible for the international coordination of the project. Local partner organizations were created in each participating region (see Figure 1), with each selecting a specific case study area (see Table 1). Although the case study regions shared similarities such as low population densities and comparable land-use patterns, they also varied considerably. Differences occurred particularly in land ownership and national forest legislation issues.

The Crossplan project was divided into three working phases:

1) 1998 to 1999

The start of international cooperation and communication between local authorities and inhabitants of

the selected regions. For better interaction with the local populations, press conferences and community workshops were held.

2) 2000

Interviews were conducted in all regional areas and data was collected.

3) 2001

Data was analyzed, final workshops were held, national and international publications were produced.

### Financing

Under the Northern Periphery Programme Article 10 of ERDF (European Regional Development Programme), all projects, such as Crossplan, must have 50% national co-funding. Crossplan had a total budget of 360,000 Euro, of which 180,000 Euro came from EU subsidies that were divided between Finland (96,019 Euro), Sweden

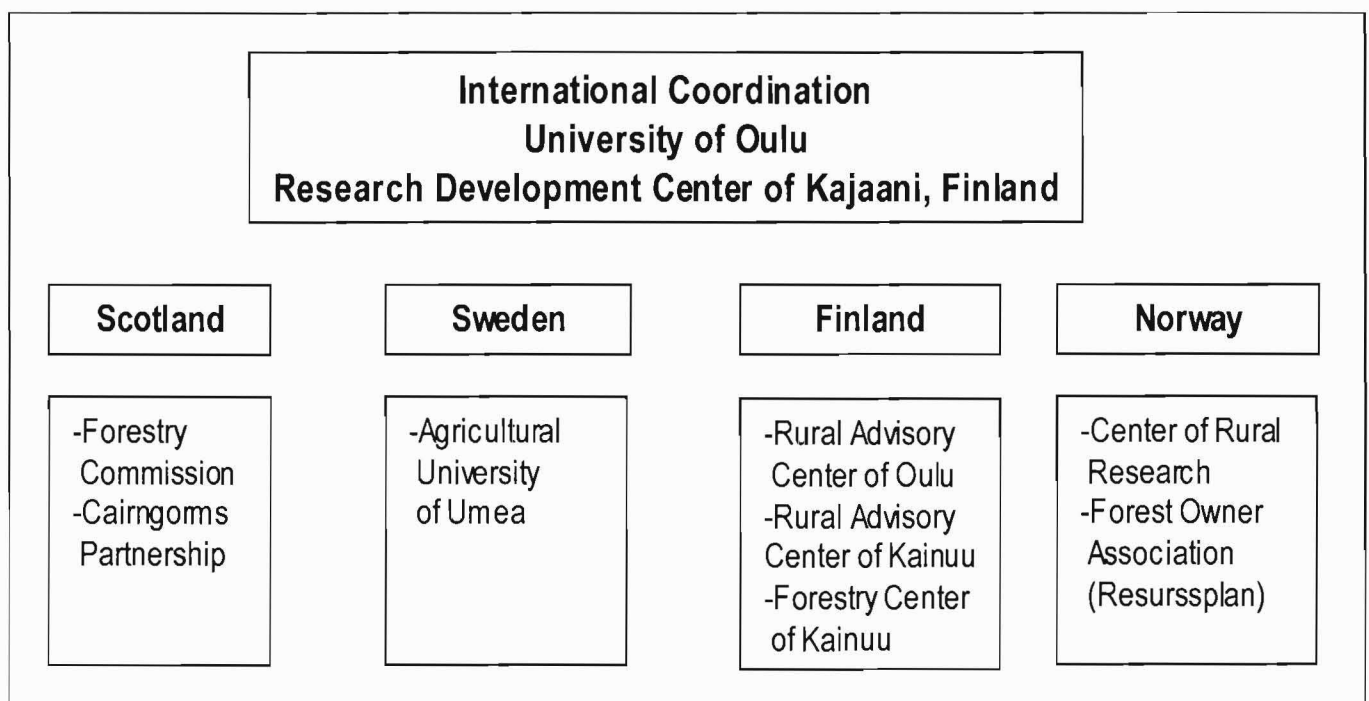


Figure 1: The organisationstructure of Crossplan

Country	Case study area	Political district
Scotland	Cairngorms	Strathdon
Finland	Vuokatti	Kainuu
	Siikajoki	Northern-Bothnia
Sweden	Nattavaara	Västerbotten
		Norrbottn
Norway	Nærøy	Møre og Romsdal
		Sør-Trøndelag
		Nord-Trøndelag
		Nordland
		Troms/Finnmark

Table 1: Location of Crossplan's case study areas

(27,993 Euro), Norway (27,993 Euro) and Scotland (27,993 Euro). In Finland, the project received financial support from the national Ministry of Agriculture and Forestry (120,000 Euro) as well as from the University of Oulu and the Regional Council of Northern Ostrobothnia. The Forest Owner Association and Ressurplan AB guaranteed the Norwegian financial support while in Sweden, funding came from the SLU (Swedish University of Agricultural Sciences).

Financial difficulties surfaced in the opening phase because national funding could not be guaranteed in all countries. As a result, Norway and Sweden had to cut activities and made several alterations in their project plans.

### Crossplan Projects in Scandinavia

#### Finland:

Crossplan Finland focused on the environmentally pressured

Vuokatti, a region hosting some 10,000 skiers per winter season. Local farmers mostly privately own the land in the region and forestry planning is on a voluntary basis. Planners, therefore, only provide guidelines and professional advice to landowners, who are free to manage their property as they wish. Although landowners have to pay for the forest plan, they can benefit from the plan's management practices.

Crossplan facilitated dialogues between forest planners, public environmental authorities and landowners to better implement landscape issues in forest management. Seventeen interviews were carried out with various interest groups from the area, such as local and regional authorities, forest owner associations, environmental organizations, entrepreneurs, and private landowners. These interviews helped integrate the concerns and needs of the participants into the landscape plan – which

was carried out by the Rural Advisory Center of Kainuu.

Project results: According to Minna Komulainen, the international coordinator of Crossplan, forest properties in Finland, Sweden and northern Norway are being abandoned and the traditional land-use practice of farming is declining. This was because an increasing number of people were leaving these rural areas. Small tourist enterprises in peripheral rural areas are, therefore, facing difficulties finding skilled personnel with good language skills. Another problem was that visitors preferred to reside in holiday villages or hotels instead of spending their holidays on farms. This created a problematic situation for small tourist enterprises that cannot compete with big hotel chains.

Furthermore, intensive ski tourism in Finland's Sotkamo region led to serious environmental problems, such as an increase in erosion, caused by the use of dynamite to build ski slopes. Sotkamo boasts the second highest number of over-



Image 3: Ove Mogart - Director of Ressurplan, Norway



Image 4: Clas Fries - Crossplan Coordinator, Sweden, Agricultural University of Umea

night stays after the Helsinki area. The Sotkamo landscape was also harmed when forest areas were cut down for the building of a new Nordic skiing tunnel. Although landowners are selling properties to the well-paying ski industry, an EIA (Environmental Impact Analysis) for ski projects does not exist. Unfortunately, the local public showed little interest in participating in workshops and seminars organized by Crossplan. This was partially because people in the Vuokatti region were tired of such public meetings following a recent EIA for a highway.

According to Mrs. Komulainen projects such as Crossplan were not possible without external funding. Many activities could not be carried out as planned due to cuts in the promised financial support. Field visits and forest inventories became very expensive and took a lot of time because of landowner-

ship distribution in the region. In Vuokatti, about 100 landowners have properties within an area of 1,000 ha.

### Sweden:

Crossplan Sweden focused on the areas of Västerbotten and Norrbotten. Researchers from the Swedish Agricultural University (SLU) in Umea carried out interviews with five local tourism enterprises.

The forest industry plays an important role in the region, with the mostly privately owned forests covering 60% of the district's total land area. The tourism industry is also growing and is regarded as one of the most promising industries in the sparsely populated area (4 inhabitants/km<sup>2</sup>) with few industrial sites.

Crossplan Sweden primarily carried out studies on forest tourism as a source of income for locals. Three people were employed on a part-time basis for one-and-a-half-years (financed by Crossplan) to conduct interviews and prepare a final report. Only five tourism enterprises were selected due to a shortage of funding. These enterprises are run by a single family

and offer a very special form of tourism known as forest tourism, which focuses on the usage of forests for recreational purposes. It varies from eco-tourism because activities such as motor sledge excursions and hunting are also included. The entrepreneurs recognized the importance of saving the natural beauty of the countryside, as it is their main marketing argument.

In Sweden, the "Common Right of Access" plays a significant role in nature tourism as it allows people to move freely inside the forests, collect fruits, camp and exercise. Private tourist entrepreneurs mostly have to make use of their neighbors' land for tourist activities such as hiking, hunting or canoeing. Therefore, communication and cooperation between landowners is necessary to assure the sustainability of the landscape and natural resources. In Crossplan interviews, it was discovered that this is not always easy. If a neighboring landowner deforests his property, the tourism entrepreneur faces enormous difficulties because the landscape he is advertising has suddenly lost its attraction. Another problem expressed by



Image 5: Farm in Northern Norway



those interviewed, was the lack of income possibilities during the winter months.

The Swedish Crossplan project produced an academic report on these five case studies that were of little use for the involved local tourism entrepreneurs. Although SLU researchers visited all five locations, a meeting between the five participating companies was never organized. The participating entrepreneurs would have certainly benefited from each other's experiences at such a meeting.

### Norway:

In Norway, the Center for Rural Research at the Norwegian University of Science and Technology (NTNU) in Trondheim was responsible for the administration of the Crossplan project. NTNU cooperated with the Forest Owner Association (FOA), also called Ressursplan, which carried out the project activities as a subcontractor.

FOA covers an area of approximately 120 million km<sup>2</sup> in the center of Norway. It had 10,872 members in 2000, of which most are private forest owners. Over the past years, the organization gained in importance when forest owners left rural areas and moved to cities, handing the management and monitoring of their properties to the FOA.

The Association is funded in part from membership fees and in part from timber trading. In 2000, FOA's annual turnover amounted to 460 million NOK, which included 7,5 million NOK profit. Their main objective is to provide

members with services such as forest management plans, cutting and reforestation services as well as support in the marketing of timber.

The Crossplan project was integrated into the work of FOA and served to strengthen participatory planning between forest owners. Cooperation between landowners was required due to the small size of properties (approximately 50 ha each). Involvement in regional planning is voluntary, therefore complicating the planning process on a larger scale. Crossplan aimed to bring different interest groups such as forest owners, public authorities and local entrepreneurs together to develop new activities such as tourism. The FOA organized meetings while researchers from NTNU carried out interviews with forest owners to discover their needs. Crossplan succeeded in initiating better communication between forest owners as well as in identifying their concerns and expectations. These results were in-

cluded in FOA's report, which also noted tasks to help improve the quality of life in rural areas. Crossplan, however, also faced several difficulties. When local funding was not provided as promised, the FOA had to move the project to another municipality.

According to the director of the Forest Owner Association (FOA), local participants did not benefit from Crossplan's transnational approach, which was carried out on an academic level only. Furthermore, the administration of a EU project takes a lot of time and the efforts did not match the results.

### Problems

The requested funding of 277,858 Euro was reduced to 180,000 Euro. This affected the project's overall implementation - especially in the business and tourism development sector - and also resulted in less participatory meetings with local inhabitants. This shortage of financial resources affected case stud-



Image 6: Application of new computer technology in the development of forest management plans at Ressursplan, Norway



Image 7: Development of the tourism sector (winter sport) in Northern Finland

ies in Sweden and Norway, where activities could not be carried out as planned. The activities that were implemented were delayed by half-a-year and led to different timetables in the target countries. This especially complicated the overall analysis and comparison process.

The participatory planning was not always successful and, in some cases, even had a negative effect. Several landowners increased the amount of harvesting timber after public participation, fearing more constraints as a result of the new forest management plans. Furthermore, in the planning process, the communication and dialogue between participating groups (foresters, planners, tourism operators, public authorities) was difficult due to varying interests.

Due to the academic nature of Crossplan, researchers and coordinators benefited more from the transnational project than the local inhabitants. For example, only na-

tional coordinators attended field trips and international meetings. Landowners, however, were not interested in transnational exchanges. Several Norwegian stakeholders said they were too involved in their own problems and basically did not care about forest management practices in Sweden.

### Results

Crossplan was a transnational project that allowed project representatives from local authorities and municipalities, researchers, forest officers, entrepreneurs and other participants to exchange knowledge and experiences. These exchanges varied from region to region, but were mostly done through meetings, conferences and project visits. Some of the established cooperation links continued after Crossplan and new joint projects were created.

One of the project's main objectives was forest and land use planning at different stages.

When comparing several of these plans, the most successful among the landowners turned out to be the strategic ones that did not focus on details. The interviews created a greater awareness of landscape values and led to an improvement in integrated economic aspects for landowners in forest planning.

In Finland, four community plans



Image 8: Skitunnel in Sotkoma, Finland

were developed with an integrated planning approach. In northern Sweden, an academic study on the constraints of forest tourism was produced. In Norway, several individual forest management plans were created.

Crossplan made use of new computer tools, such as a 3-D Analysis and modern GIS, for the preparation of forest and land use plans.



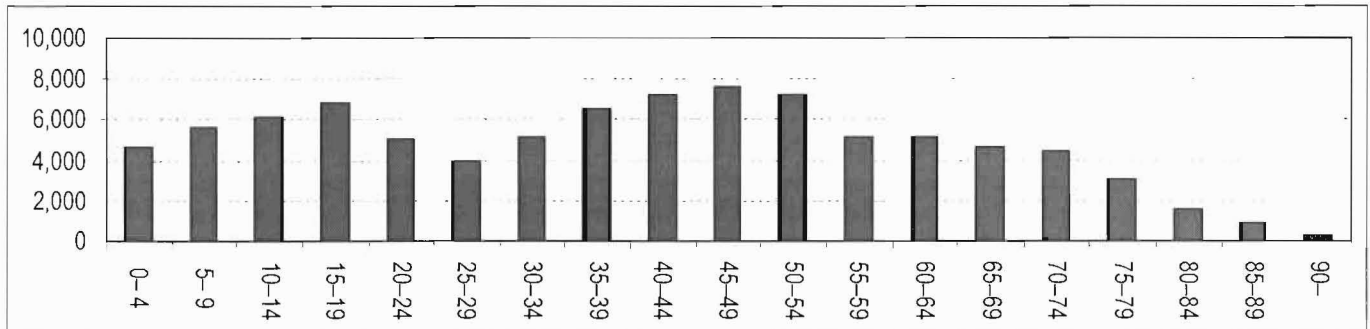
Image 9: View on the ski slopes in Sotkamo, Northern Finland



Image 10: Erosion on the ski slopes caused by overuse

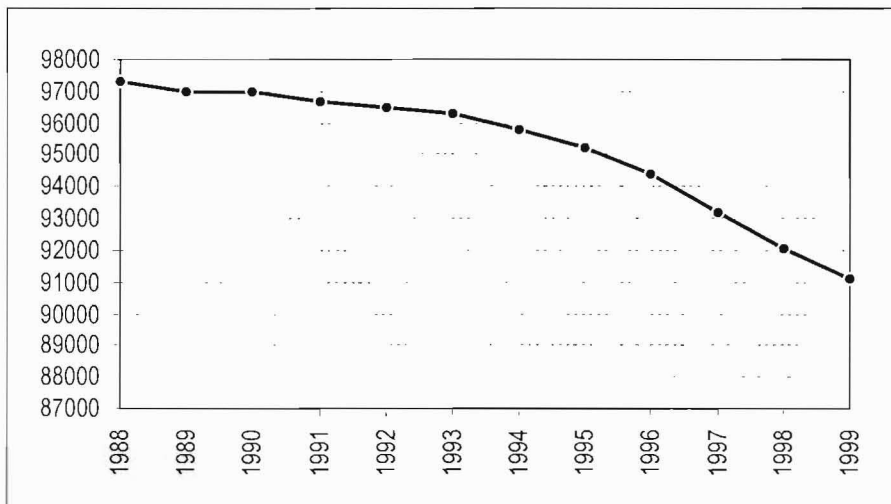
### Statistical data collection from CROSSPLAN project area in Finland

Table 2: Population by age groups in the political district of Kainuu in 1999



Source: Statistics Finland

Figure 2: Population change 1980-1999 in the political district of Kainuu



Source: Statistics Finland

Table 3: Gross income by forest ownership in 1,000 FIM

	Privat	Industry	Government	Total
1996	211,630	25,254	114,071	350,955
1997	257,094	22,610	125,143	404,847
1998	294,790	19,995	126,215	441,000
1999	271,483	31,879	140,769	444,131

Source: Statistics Finland

Table 2 shows the distribution of age groups in the district of Kainuu, where most of the inhabitants are between five and 19-years-old and between 35 and 54. The decrease of the population between 20 and 30 is due to the fact that many young people leave rural areas and move to bigger cities for better education and working opportunities. Figure 2 illustrates the enormous decline in the population in the Kainuu district over the past ten years. Table 4 underlines the critical situation in rural areas in northern Finland, where the ageing of the population has increased dramatically. The population in the Kainuu district declined since 1988. In 1998 and 1999, the death rate exceeded the birth rate while emigration grew rapidly. Finland shares this problem with other Scandinavian countries, which are also facing a significant population decline in the peripheral northern areas. This is due not only to reduced employment opportunities, but due to difficult living conditions such as long dark winters and little social

**Table 4: Population change 1980-1999 in the political district of Kainuu**

	natural change (birth and death)	total change (including migration)	total population
1988	284	-762	97,316
1989	227	-343	96,973
1990	262	-16	96,957
1991	196	-268	96,689
1992	230	-182	96,507
1993	190	-209	96,298
1994	259	-484	95,814
1995	213	-613	95,201
1996	102	-815	94,386
1997	19	-1,168	93,218
1998	-59	-1,147	92,071
1999	-46	-990	91,081

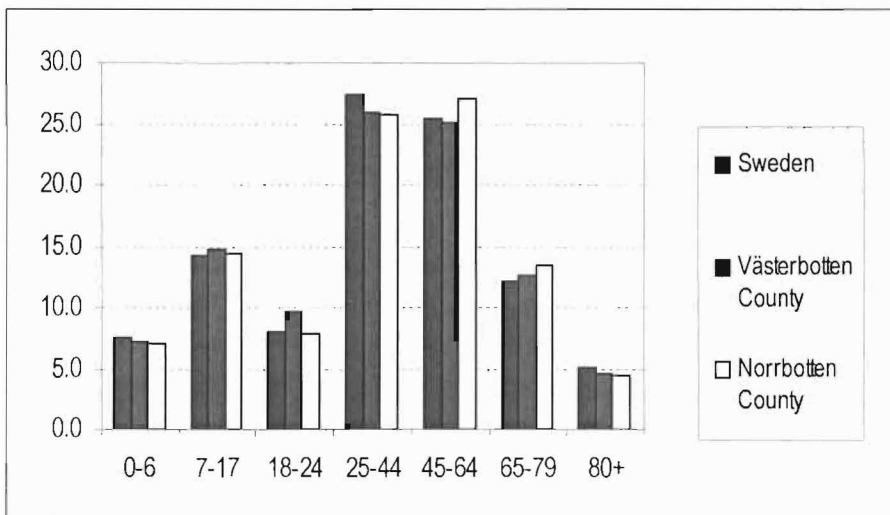
Source: Statistics Finland

activities for the younger generations.

Table 3 gives an overview of the gross income in the forest sector by ownership. The forestry industry is one of the main economic sectors in Finland that contributes significantly to the national GDP. The private sector has the biggest share followed by government-owned forests. The share of industrial forest companies is very small because most Finnish forests are privately owned. Furthermore, table 3 shows an increase in the gross income of 93,176,000 FIM from 1996 to 1999.

### Statistical data collection from CROSSPLAN project area in Sweden

**Population of Sweden and the counties Västerbotten and Norrbotten in % per age group in 2000**



Source: Statistics Sweden

Figure 3 illustrates the age groups in “%” of the total population for both counties and Sweden as a whole. Surprisingly, the numbers vary only slightly. The number of young people between 7-17 and 18-24 is virtually the same for the whole of Sweden as it is for Norrbotten. Furthermore, the percentage of young people in Västerbotten, which is categorized as a rural county, is even higher than in Sweden.

**Table 5: Population changes in Sweden and the counties Västerbotten and Norrbotten between 2000 and 2001**

	Population	Population growth	Births	Deaths	Change	Internal migration			External migration		
						In	Out	Net	In	Out	Net
<b>Sweden</b>	8,910,559	27,767	91,810	93,730	-1,920	.	.	.	61,970	32,060	29,910
<b>Västerbotten</b>	254,811	-829	2,477	2,546	-69	5,899	7,155	-1,256	1,128	611	517
<b>Norrbotten</b>	254,701	-1,537	2,343	2,720	-377	4,546	6,175	-1,629	1,135	662	473

Source: Statistics Sweden

Table 5 shows the population change in the counties Västerbotten and Norrbotten (the Crossplan project areas), compared to the numbers for the whole of Sweden from 2000 to 2001. The population declined in both coun-

ties while for the whole of Sweden, the population increased. This is because Västerbotten and Norrbotten are situated in northern Sweden and are strongly affected by the ongoing population decline in peripheral areas. The natural

population decline in Sweden is alarming. The overall population growth for the country is only due to immigration.

**Table 6: Gross operating income from visitors (1000 SEK) in Västerbotten**

	1995	1996	1997	1999
<b>Hotel</b>	400,017	336,409	406,617	402,365
<b>Holiday village</b>	44,374	33,629	29,434	35,509
<b>Camping</b>	104,492	120,668	100,538	114,231
<b>Youth hostels</b>	4,735	5,769	5,517	6,105
<b>Family/Friends</b>	333,546	353,927	339,979	303,446
<b>Leisure cottages</b>	133,575	104,562	147,708	77,826
<b>Others</b>	127,359	91,622	135,122	66,910
<b>Day visitors</b>	374,811	586,768	336,028	209,292
<b>Total</b>	1,522,909	1,633,354	1,500,944	1,215,683

Source: Facts about Vasterbotten, Länsstyrelsen Västerbottens län

In Table 6, the gross operating income from visitors in Västerbotten from 1995 to 1999 is shown. Although the tourism sector gained in importance over the past years, the total income of visitors decreased slightly. The income from day visitors especially decreased from 374,811,000 SEK in 1995 to 209,292,000 SEK in 1999.

### Statistical data collection from CROSSPLAN project area in Norway

Table 7: Population changes 2000 to 2001 in the CROSSPLAN regions

	Population 2000	Births	Deaths	Excess of births	In-migration		Out-migration		Net migration	Population growth*	Population 2001
					Total	From abroad	Total	Abroad			
Norway	4 478 497	59 234	44 002	15 232		36 542		26 854	9 688	24 939	4 503 436
Møre og Romsdal	243 158	3 109	2 331	778	5 423	1 558	5 545	726	-122	652	243 810
Sør-Trøndelag	262 852	3 535	2 498	1 037	8 139	1 918	7 164	1 315	975	2 013	264 865
Nord-Trøndelag	127 108	1 634	1 391	243	3 195	681	3 281	292	-86	153	127 261
Nordland	239 109	2 833	2 504	329	6 103	1 798	7 257	722	-1 154	-814	238 295
Troms	151 160	2 098	1 374	724	5 539	1 300	5 636	840	-97	617	151 777
Finnmark	74 059	1 120	687	433	3 379	1 116	3 792	438	-413	28	74 087

Source: Statistics Norway 2001

Table 7 shows population changes in the whole of Norway for the years 2000 and 2001, as well as for the political districts where Crossplan was active. The population increased in all districts except Nordland, a very remote province in northern Norway.

When compared to demographic data from Sweden and Finland, Norway does not appear to be affected by a decline in population. However, the population growth in Norway is quite low.

Table 8 gives an overview of the forest-planning situation in Nor-

way. In provinces with Forest Owner Association (FOA) representation, almost half of the properties have a management plan. In Nordland and Troms/Finnmark, only few properties have management plans. This could be due to their remote location and less intensive use of forest resources.

Table 8: Management plans by county for the CROSSPLAN area in 1999

	Properties with forest area	Forest area in Decares	Properties with management plan		Percentage of forest area with management plan	Annual increment according to management plan, m <sup>3</sup>
			Number of properties	% of all forest properties		
Norway	120 471	68 731 805	39 895	33	65	10 218 910
Møre og Romsdal	8 508	2 289 878	1 951	23	43	242 024
Sør-Trøndelag	7 561	4 236 539	3 320	44	70	422 341
Nord-Trøndelag	6 487	5 894 357	3 306	51	74	717 301
Nordland	10 538	4 666 726	2 262	21	47	274 349
Troms/Finnmark	7 751	3 614 823	603	8	27	97 995

Source: Statistics Norway 2001

### **Evaluation**

#### **Human factors**

Finland's University of Oulu established the principle idea for the Crossplan project. The University of Oulu found partners in Scandinavia and Scotland because it was easier to get EU funding for transnational projects, and because the Northern Periphery Programme required international cooperation. Through this cooperation, a network between partners and sub-contractors was created and several links were established.

Crossplan's workshops and consultations especially served to increase the knowledge of participants in the field of environmental conservation in land use planning. However, researchers were the ones to benefit the most, as it was they who mainly participated in the organized excursions and international seminars.

Overall, the project did not create new, permanent jobs. It did, however, contribute to the improvement and stabilization of the financial situation of some landowners through the implementation of a better forest management plan for their areas. With this in mind, the Crossplan project made a positive impact on the quality of life of some participants.

#### **Resources and Environment**

Crossplan's main objective was to contribute to the improvement of the environment through the conservation of the landscape. This was done by integrating landscape aspects into the planning processes of rural areas, which were mainly

based on the national protection legislation. Public meetings and workshops were held while consultations were offered to landowners. The project aimed to raise the environmental awareness of its participants and to strengthen the cooperation between landowners, stakeholders and public authorities. Landowners were encouraged to take ecological aspects into consideration in the forest management of their plots. In this way, the project was probably successful and had a positive impact on the environment. The interest and participation of the local inhabitants contributed significantly to Crossplan's success in the environmental sector. The project, however, also caused a negative impact when several landowners raised the amount of logging, fearing further restrictions imposed by the forest management plans. Also, Crossplan's contribution to the development of tourism could pose further landscape problems, such as the erosion problem caused by ski slopes in Sotkamo in northern Finland (see image 10), if the number of visitors increases considerably.

#### **The Economic Viability**

Crossplan's primary source of funding came from the EU while co-financing was derived from national partner organizations (see: Financing of Crossplan). There was no private funding. The total investment from 1999 to 2001 amounted to 360,000 Euro. The project operated solely on subsidies and had no direct economical output in the form of new jobs. It was designed for a fixed three-

years period with no option for extension. During that time, all financial resources were spent on different project activities. Crossplan was no designed to achieve financial self-sustainability.

#### **Political Factors**

Crossplan was a transnational project covering four separate regions, with Finland's University of Oulu taking responsibility for the international coordination. Project partners from public and private organizations in Sweden, Norway and Scotland also contributed (see partnership organization chart). The project mainly dealt with forest and land use planning and was integrated in local development plans. This integration varied in each target area. Crossplan's impact on local development was especially significant in Finland, where a landscape plan was devised, and in Norway, where several individual forest management plans were produced. Several partner organizations cooperated with local politicians in order to facilitate the participatory planning approach.

#### **Crossplan's Technological Potential**

Crossplan applied new technologies in the forest and landscape-planning sector. In Norway, the FOA partner organization worked extensively with computer tools including GIS and 3-D modeling. In Finland, a special timber-modeling program called X-forest was used. However, the computer tools were not always helpful because not all were designed to meet the special criteria needed for indi-



vidual forestry planning. Therefore, several limitations were faced in the implementation of the new tools.

### Summary

Although all Crossplan activities were completed and several forest plans were developed, the success of the project remains questionable. Crossplan cannot be consid-

ered a successful rural development project due to its primarily academic approach, its full dependency on outside funding and its three-year timetable that proved to be too short for such an operation. Despite a few positive results, the project was too short-lived and failed to produce long-term improvements for the local population in Crossplan case study areas.

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## Description, analysis and evaluation of development project

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Interviewed: April 17, 2001, by GKH



Image 2: Area around Patergassen and Gnesau, Carinthia, Austria

## Introduction

The “me.chanic” company was founded by Robert Meislitzer (Image 1) in 1992 in a picturesque village in Carinthia, Austria. Image 2 gives an impression of the surrounding area.

Although the company has 25 regular employees, Meislitzer said he could employ a further 100 people providing he found applicants with the qualifications required for his production. The company produces high-precision machine parts for various large companies, such as Philips, Siemens, PSS-Vienna or SEZ-Villach. One of the products his company produces is a tool for the wafer production of SEZ-Villach (wafers are the basis of computer chips).

Robert Meislitzer’s company is situated only a few hundred meters from his parent’s farm, which he

helps to operate in his spare time. After finishing school, Meislitzer had training as a mechanic (“Lehre in Maschinenbau”), which he completed in 1984 (“Gesellenprüfung, 1984; Werkmeisterprüfung, 1987; Gewerbeprüfung, 1992”).

## Main problems

Asked about the main problems of running a relatively high-tech company in a rural area, Meislitzer said it was virtually impossible to find applicants with the technical qualifications he required. Instead, Meislitzer has to train school graduates (“Lehrlinge”). On average he has 3 to 4 trainees, who then usually become regular workers. He also complained about the lack of political support in his village. Most of the village’s influential people were skeptical about his company. With the exception of these complaints, Meislitzer surpris-



Image 1: Robert Meislitzer and his wife

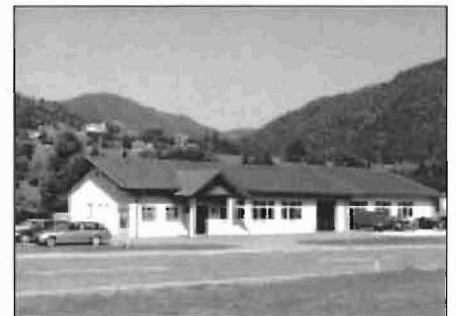


Image 3: me.chanic production site



Image 4: Robert Meislitzer and G.K. Heilig



Image 5: me.chanic production

ingly reported no other disadvantages of setting up a company in a rural area. He pointed out that the transport of raw material and finished goods was not a problem, because he produces only a small series of custom-made machine parts, which are light and small. Communication, or access to customers, is also not a problem. His company has a web page directed to general customer information and advertising. When it comes to negotiating with potential customers, Meislitzer opts for direct face-to-face contact. Although he prefers receiving paper prints of technical drawings (for the production) from his customers, he may consider the Internet as an alternative. However, Meislitzer said the Internet poses new problems in this respect, such as different formats and software standards. "It just costs time," he said.

## Main advantages

According to Meislitzer, low labor force fluctuation is the main advantage of running a high-tech company in a rural area. He has many employees who began working with the company from day one. Asked if he fears his trainees may move to cities after receiving excellent technical training, Meislitzer said his workers appreciated the short commuting distances and the quality of life of this rural area.

## Company boss and part-time farmer

Interestingly enough, Meislitzer, the founder and manager of a technical company, recently began running his

family's farm as a hobby. He had quit farming in 1995 because his company was very time-consuming. It was the year in which Austria joined the European Union (EU) and Meislitzer also quit farming "in protest of" EU conditions for farmers.

For several years Meislitzer rented out his land of 50 hectares of which 10 hectares are arable lands and the rest consists of forest and Alpine meadows. However, in 2000 he started breeding a herd of 12 beef cattle (Scottish Highlanders), which graze on his Alpine meadows during the summer months. This type of production system reduced his workload from around 20 hours per week - when he owned milk cows - to some 15 minutes!

When asked about the BSE related market collapse of beef, Meislitzer surprisingly denied any problems: he sells the beef directly to customers in the form of mixed packages, which include pieces from all parts of the animal (such as various qualities of meat, bones, liver, etc.).

Meislitzer only has long-standing private customers. He does not cater to restaurants because they pay lower prices. His beef business is still very small-scale as he sells around 300-400 kilograms of meat per year.

## Evaluation

This *rural* high-tech company is certainly not typical of the area. We were told that there are only two or three other companies in Carinthia that are comparable with "me.chanic", but they are located



Image 6: CNC machine

closer to a town or city. Meislitzer received no initial support from development programs – neither from the EU nor from the national or provincial Austrian governments. Only after the company was operating, Meislitzer received some EU funding for expansion purposes through the Carinthian Economic Promotion Fund ("Kärntner Wirtschafts Förderungs Fonds").

This development initiative was only possible because an entrepreneur with technical talent discovered a market niche, and had the necessary endurance to set-up a company. Meislitzer's entrepreneurial talents are also evident in his tourism efforts. Recently he started to rent out his family's mountain hut on the Alpine meadow ("Almhütte") to tourists.

Figure 1: Gnesau, Feldkirchen, Kärnten: Total population, 1869 - 1998 (1869 = 100%)

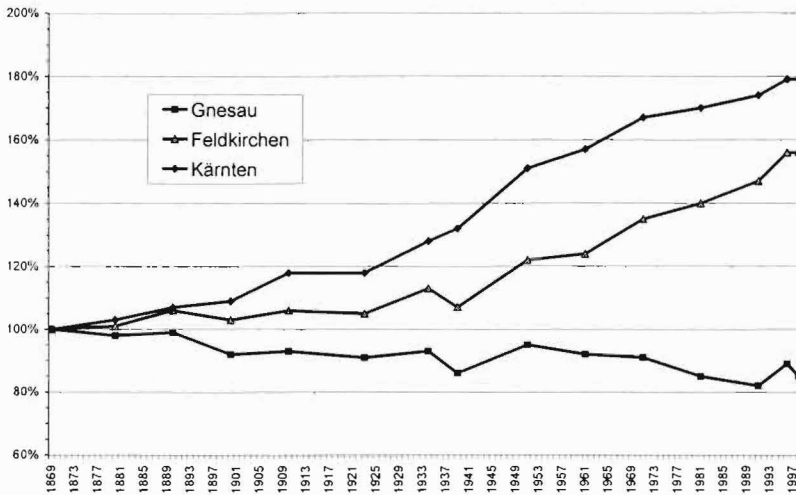


Table 1: Total population, 1869 - 1998

Year	Gnesau (Municipality)	Hermagor (Political District)	Kärnten (Federal State)
1869	1,445	19,439	315,397
1880	1,415	19,723	324,857
1890	1,428	20,636	337,013
1900	1,330	20,073	343,531
1910	1,344	20,646	371,372
1923	1,313	20,330	371,227
1934	1,344	21,925	405,129
1939	1,246	20,805	416,268
1951	1,368	23,640	474,764
1961	1,328	24,124	495,226
1971	1,311	26,335	526,759
1981	1,223	27,268	536,179
1991	1,187	28,632	547,798
1996	1,289	30,323	565,234
1998	1,235	30,315	564,091

Source: Statistik Österreich; Volkszählungsergebnisse; Gebietsstand 15. 5. 1991; 1996, 1998 (31.12.): Hauptwohnsitz-Einwohnerzahlen

Note: For comparison: Total population of the political district (Feldkirchen) and the federal state (Kärnten)

## Selected statistical data

Gnesau has lost about 18% of its population since 1869. This was particularly the case between 1951 and 1991 when the population declined by almost 20%. There was a slight increase between 1991 and 1996, but the population again declined between 1996 and 1998.

These trends are in stark contrast to the development of the political district (Feldkirchen) and to numbers in the Federal State of Carinthia, where the population increased significantly. For the last 130 years, the population almost continuously *increased* in Carinthia - from around 315,000 people in 1869 to some 564,000 in

1998. This is roughly an 80% increase in population.

These data show that the village of Gnesau followed a trend of population stagnation or decline, which is typical for many small rural settlements in Europe. Urban areas saw an increase, such as the political district of Feldkirchen. The population growth in the Federal State of Carinthia is typical for southern areas with climatic advantages and major tourist attractions.

Table 2: Total population by age groups, 1991 and 1981 (Change in %)

	Gnesau (Municipality)			Feldkirchen (Political District)			Kärnten (Federal State)		
	1991	1981	Change %	1991	1981	Change %	1991	1981	Change %
<b>Total</b>	1.187	1.223	-2,9	28.632	27.268	5,0	547.798	536.179	2,2
<b>0 - 14</b>	227	298	-23,8	5.726	6.520	-12,2	100.234	116.062	-13,6
<b>15 - 59</b>	726	731	-0,7	17.699	16.547	7,0	337.516	326.498	3,4
<b>60+</b>	234	194	20,6	5.207	4.201	23,9	110.048	93.619	17,5
<b>Male</b>	617	636	-3,0	14.220	13.469	5,6	264.902	257.814	2,7
<b>0 - 14</b>	125	168	-25,6	3.007	3.385	-11,2	51.638	59.376	-13,0
<b>15 - 59</b>	391	383	2,1	9.066	8.398	8,0	169.373	160.990	5,2
<b>60+</b>	101	85	18,8	2.147	1.686	27,3	43.891	37.448	17,2
<b>Female</b>	570	587	-2,9	14.412	13.799	4,4	282.896	278.365	1,6
<b>0 - 14</b>	102	130	-21,5	2.719	3.135	-13,3	48.596	56.686	-14,3
<b>15 - 59</b>	335	348	-3,7	8.633	8.149	5,9	168.143	165.508	1,6
<b>60+</b>	133	109	22,0	3.060	2.515	21,7	66.157	56.171	17,8

Source: Statistik Österreich; Volkszählungsergebnisse; Gebietsstand 15. 5. 1991; 1996, 1998 (31.12.): Hauptwohnsitz-Einwohnerzahlen

Table 2 shows the dramatic aging process in Gnesau, which is typical for many small villages. Within only one decade the number of people aged 60 and older increased by 20%, while the number of children under the age of 14 declined by 23%. In the Federal State of Carinthia, which includes several larger cities and towns, the number of children declined by only 13.6% and the number of elderly increase by "only" 17.5%. In other words, aging was more rapid in the village.

Table 3: Buildings in 1981 and 1991; Buildings in 1991 by category

	Gnesau (Municipality)	Feldkirchen (Political District)	Kärnten (Federal State)
Buildings 1991 (total)	373	8.712	143.929
Buildings 1981 (total)	321	7.424	126.574
Change 1981-1991 in %	16,2	17,3	13,7
<b>in % (1991):</b>			
Buildings with apartments	90,6	91,2	89,8
Buildings with tourist apartments	16,4	13,4	8,5
Buildings with foreign owner	3,8	3,2	3,1

Source: Statistik Österreich; HWZ91, HWZ81; Gebietsstand: 15. 5. 1991)

Between 1981 and 1991 the number of buildings increased in Gnesau from 321 to 373, marking an increase of about 16%. About one fifth of the buildings in this village have tourist apartments and almost 4% belong to foreigners.

	Gnesau (Municipality)			Feldkirchen (Political District)			Kärnten (Federal State)		
	1995	1990	Change in %	1995	1990	Change in %	1995	1990	Change in %
<b>Total</b>	<b>109</b>	<b>116</b>	<b>-6.0</b>	<b>1,362</b>	<b>1,462</b>	<b>-6.8</b>	<b>24,578</b>	<b>25,654</b>	<b>-4.2</b>
Fulltime farm	37	42	-11.9	434	513	-15.4	5,850	7,935	-26.3
Part-time farm	66	66	0.0	883	887	-0.5	17,306	16,200	6.8
Other*	6	8	-25.0	45	62	-27.4	1,422	1,519	-6.4
<b>Areas (in ha)</b>	<b>5,906</b>	<b>5,657</b>	<b>4.4</b>	<b>48,903</b>	<b>49,564</b>	<b>-1.3</b>	<b>859,679</b>	<b>861,560</b>	<b>-0.2</b>
Fulltime farm	3,108	3,150	-1.3	30,110	30,367	-0.8	328,041	374,560	-12.4
Part-time farm	2,699	2,250	20.0	16,903	16,980	-0.5	286,794	249,100	15.1
Other*	99	257	-61.5	1,890	2,217	-14.7	244,844	237,900	2.9

Source: Statistik Österreich; LBZ 1990, AS 1995

The number of farms and forestry holdings declined in Gnesau by some 6% between 1990 and 1995. The decline was especially strong among those farms where people have no other source of income ("Haupterwerbsbetriebe"). The area cultivated by these farms shrank only slightly - so the average farm size in hectares actually increased.

Table 5: Regular Budgets (from taxes)

Year	Gnesau (Municipality)			Feldkirchen (Political District)			Kärnten (Federal State)		
	Income	Expenses	Balance	Income	Expenses	Balance	Income	Expenses	Balance
1988	9,5	9,5	0.0	311,3	298,6	12.7	6.645,4	6.514,4	131.0
1989	10,1	10,0	0.1	318,7	308,2	10.5	7.023,1	6.906,3	116.8
1990	11,7	11,7	0.0	332,9	325,4	7.5	7.565,4	7.448,5	116.9
1991	12,9	12,8	0.1	364,4	357,9	6.5	8.275,6	8.113,6	162.0
1992	13,6	13,5	0.1	408,3	392,4	15.9	9.109,4	8.937,9	171.5
1993	12,7	12,8	-0.1	459,1	446,7	12.4	9.413,5	9.359,2	54.3
1994	13,6	13,6	0.0	462,4	458,8	3.6	9.911,9	9.835,3	76.6
1995	14,6	14,6	0.0	534,6	533,0	1.6	10.218,1	10.165,8	52.3
1996	15,1	14,6	0.5	494,4	488,4	6.0	10.950,0	10.845,2	104.8
1997	35,1	35,1	0.0	536,8	529,6	7.2	11.193,4	11.030,4	163.0

Source: Statistik Österreich; Finanzstatistik; Last updated: March 16, 2000.

This table gives the communal income from taxes and the communal expenses for Gnesau. For comparison purposes the budgets of the larger political district (Feldkirchen) and of the Federal State (Carinthia) are included. There is a remarkable increase in income in the 1997 fiscal year (for which we have no explanation).

## Conclusion

This rural development project was a truly endogenous initiative. It was the idea of a single person, a farmer's son with good technical training, who initiated, planned and implemented the venture. Meislitzer is a real entrepreneur, who used available resources, like his family's land and some capital, to build up a technical business, which currently gives jobs to some 25 people. No agricultural development in this area could have created more employment.

The toughest barriers Meislitzer had to overcome when he started his business were the legal, technical and administrative requirements and permissions for setting up a factory in Austria. These required excessive preparatory "red tape" ("Gewerbe-Nachweis, Betriebs-stätten-Genehmigung"), such as very detailed descriptions of the planned technical processes – including descriptions of waste handling procedures for all types of processed materials.

Meislitzer was aware of these permissions and was quite willing to obtain them, but he, nevertheless, was confronted with difficulties. His main problem was that he did not know exactly what type of materials his customers would need him to work with. Authorities, however, wanted this information before he started his business.

Fortunately, the civil servants at the responsible administrative authority ("Bezirkshauptmann-schaft") were helpful and provided valuable

suggestions and assistance in completing the paperwork.

We believe this development project is important for the village and the entire region. It brings relatively high-tech jobs to an area that is dominated by small-scale agriculture and tourism. The "me.chanic" company provides young people from rural areas the opportunity to receive training and find employment in a non-agricultural sector with good prospects. Providing attractive jobs for younger generations is one of the most urgent problems in rural areas.

From this example, we can learn that rural (economic) development needs the initiative and technical know-how of at least one creative and determined individual. This underlines the overwhelming importance of human factors in rural development issues. These factors include education, technical training, and the development of business skills.





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**Introduction**

The KEHYPAJA project seeks to help young people in rural areas who have social problems. It is an initiative of Finland's Iisalmi Youth Aid Association (IYA), a politically and religiously independent non-governmental organization (NGO) that supports youth welfare.

One of the main objectives of KEHYPAJA – a Finnish word meaning “sustainable development” – is to provide employment for these youths, who mostly come from poor economic backgrounds. Since its 1974 founding in the small Finnish town of Iisalmi, the IYA has successfully implemented various social projects and helped several hundred young people find jobs. KEHYPAJA was created in 1985 in co-operation with the municipality of Iisalmi.

The IYA also created a Development Cooperation Workshop Project focusing on four activity areas: 1) “civil activity centers” 2) a development co-operation initiative 3) housing projects and 4) and an “outreach youth work” project.

**Facts about Iisalmi**

Located in the center of Finland, Iisalmi has a population of 23,000. This small town lies within the municipality of Iisalmi, which spreads over 872.61 km<sup>2</sup> and has a low population density of 26 inhabitants per km<sup>2</sup>. Woodlands surround most of Iisalmi in the district of Pohjois-Savo, where forestry plays a significant role in the generation of income for the local population. Industrial centers exist only on a small scale and include small and medium enterprises such as

a brewery, a sawmill and several small shops. Most of the locals are employed by the municipality (964 employees in 2000) and in the service sectors (health and education institutions).

The unemployment rate in the district of Pohjois-Savo is among the highest in Finland and has affected social conditions. The crime rate is also higher than in other Finnish provinces. Most of the delinquents are youngsters so youth support projects are in high demand.



Image 1. View of the municipality of Iisalmi

### History of Iisalmi Youth Aid

One of KEHYPAJA's first activities was the creation of a "Youth Bus" an old bus that was converted into a traveling youth club equipped with a television, playing cards, books and other entertainment. The bus traveled around the municipality, serving as a meeting point and communications center for young people.

In 1986, KEHYPAJA inaugurated a youth coffee house and a year later, a workshop for the unemployed was started as a pilot project. The workshop collected second-hand articles and repaired them to be used as development aid for third world countries. The idea of recycling was new in Finland and received financial support from the Ministry of Labor and the Ministry of Foreign Affairs.

When the municipality's "Train Road Company" celebrated its anniversary, they organized a trip throughout Finland for IYA members. A local television reporter documented the entire trip while newspapers carried the train's schedule and encouraged people to support IYA actions. Throughout the trip, the IYA collected nine containers of donated recyclable second-hand articles such as bicycles, sewing machines, household articles and farming tools. In 1983, the KEHYPAJA workshop opened, using tools and space rented out by a local technical school. In those workshops, young people were trained to repair and recycle the collected items. It was successful in training and helping the unemployed obtain employment, mostly in metal work.

A development co-operation was launched with Tanzania and bicycles repaired at the workshop were sent



Image 2: The workshop and office of Iisalmi Youth Aid

to the African country. This project expanded in the following years.

### Activities of the KEHYPAJA Project

#### Civil activity centers

These centers offer wider participation possibilities than the traditional workshops. In 1991, KEHYPAJA moved to an old industrial building with 4,000m<sup>2</sup> and was able to expand their variety of workshops (metal, bicycle repairing, sewing, electronics, carpentry as well as a mechanics workshop and a third world store). The IYA also became active in environmental protection and organizes cultural events and other social activities.

#### Development Co-Operation and Internationality

KEHYPAJA and the IYA focus on development co-operations and international relations, especially with African countries such as Tanzania. The IYA set up a vocational center

for young Tanzanians to train in metalwork, construction, sewing and carpentry. The aim was to improve the standard of living in the Morogoro region. Every summer, young Africans visit Iisalmi to attend an international work camp organized by the IYA. Youths can exchange ideas and experience each other's cultures at these events.



Image 3: TV's waiting for repair

According to the manager of IYA, *“the center operates independently and employs approximately 60 people”*.

In 1997, the IYA began a partnership with a group from Dundalk, Ireland, who was very interested in KEHYPAJA and visited the project in Finland. The Irish applied for funding and needed only two months to set up similar workshops.

### Housing Project Jarrenpiha

Due to a shortage of small rental apartments, the Iisalmi Youth Aid Association began its Jarrenpiha housing projects in the early 1990s. They sought to offer alternative housing models for young people with social problems. The housing complex is designed and operates like a commune – residents are responsible for the maintenance of the complex. The IYA believes the model will help enhance the social skills of the residents and lead to better social integration.

Sixteen ecological apartments were built during the Jarrenpiha I project, which lasted two years. In order to save money, the IYA and volunteers primarily carried out the construction. The success of this project led to Jarrenpiha II, which created an additional ten apartments.

KEHYPAJA also created the youth support housing center in Ihala - a 20 minutes drive from Iisalmi – with social workers living on the premises. The center offers provisional living space for some six to eight youths needing support to become independent. These youths are mostly from broken homes with alcoholic or divorced parents.

### Outreach Youth Work

Through their “outreach youth work”, the IYA seeks to help young people with motivation problems by allowing them to participate in planning activities. The project focuses on co-operations between different social groups, such as parents’ councils and social youth councils. The activities include: afternoon children’s care, special youth work, training and work arrangements. The aim is to create new operation models to help young people motivate themselves for further education and employment.

The manager, Hannele Tams, said a 1995-2000 experimental model for juvenile delinquents in the district courts of Iisalmi and Kajaani, had proved successful.

### Financing and Funding

Table 1 provides an overview of the 1999 and 2000 financial situation of the IYA, a non-profit organization. Approximately 50 % of their money comes from the Finnish Ministry of Labor. Those employed by KEHYPAJA receive their salaries



Image 4: Second hand bicycles were repaired and sent to Africa

from the municipality of Iisalmi. Funding also comes from the Ministry of Justice and the Ministry of Social Affairs and Health, as well as from the Ministry of Education. Further support was received from RAY (Finland’s Slot Machine Association) and several small private funding organizations. EU funding increased from 80,000 FMK in 1999 to 108,760 FMK in 2000.



Image 5: The housing complex offers new homes for young people



Image 6: The workshop provides jobs for unemployed people

The IYA did not make sufficient profit from the selling of its recycled products to be able to operate without outside funding.

### Problems and Difficulties

Over the past years, the Finnish government drastically reduced funding for local municipalities. This affected IYA operations as the municipality of Iisalmi pays most IYA salaries. This resulted in the IYA having to cut down

its number of employees. Manager Hannele Tams said that in 1995 some 96 people had jobs funded by the municipality's employment support, while in 2001 the number decreased to 23 employees.

Another problem is related to the development co-operation. Last year, Tanzania increased their import taxes and the IYA were unable to send containers because of the higher expense. Other NGO's are currently shipping the containers to Tanzania.

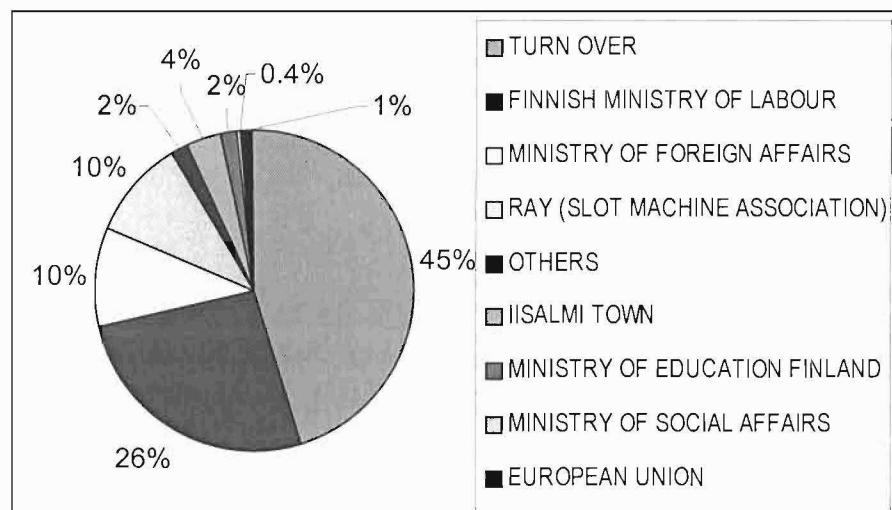


Figure 1: The financial situation of IYA in 2000, Share of investors in %

FINANCING	1999	2000
TURN OVER	4,751,407 mk	4,192,240 mk
FINNISH MINISTRY OF LABOUR	2,333,691 mk	2,460,990 mk
MINISTRY OF FOREIGN AFFAIRS	1,450,000 mk	920,000 mk
RAY (FINLAND'S SLOT MACHINE ASSOCIATION)	1,248,797 mk	974,181 mk
OTHERS	204,362 mk	148,140 mk
IISALMI TOWN	160,212 mk	342,879 mk
MINISTRY OF EDUCATION	148,000 mk	162,000 mk
MINISTRY OF JUSTICE & MINISTRY OF SOCIAL AFFAIRS AND HEALTH	100,000 mk	35,000 mk
EUROPEAN UNION	80,000 mk	108,760 mk
<b>TOTAL</b>	<b>10,476,469 mk</b>	<b>9,344,190 mk</b>

Table 1: The financial situation of IYA in 1999 and 2000

**Table 2: Number of inhabitants**

	Municipality Iisalmi	Province Ylä-Savo
1970	20,518	84,823
1980	22,648	76,616
1990	23,979	74,870
1997	23,772	72,137
1998	23,612	71,179
1999	23,389	67,875
2000	23,120	66,659

Source: Statistics Finland

**Table 3: Change of population in the municipality of Iisalmi**

	1998	1999	2000
Birth rate	229	250	226
Death rate	245	209	209
Natural Change	-16	41	17
In-migration	867	856	872
Out-migration	1,030	1,090	1,157
Net-migration	-163	-234	-285

Source: Statistics Finland

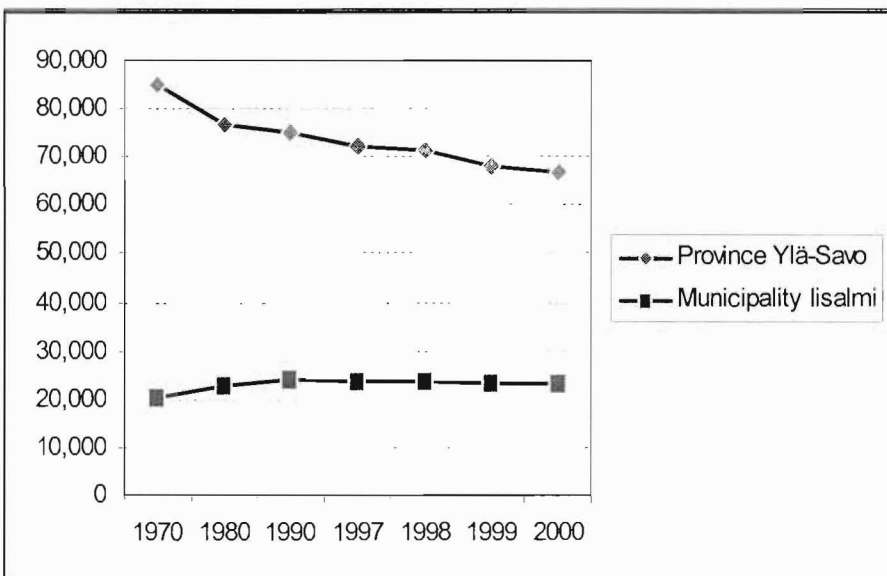
Table 2 and figure 2 show that the population decline in the municipality of Iisalmi was only due to a net out-migration. In fact, the balance of births and deaths was positive in 1999 and 2000. In other words, the population increased from a surplus of births. This could be because Iisalmi is a small town attracting people from remote areas and thus affecting province's demographic statistics. In contrast, numbers in table 3 reveal that Iisalmi is facing a depopulation problem similar to that of other rural areas in Scandinavia. The number of people leaving the municipality increased rapidly over the past three years, following the trend of depopulation. In 1998, the difference between people moving in and out was -163 while in 2000 it grew to -285, which is almost 40% more.

**Table 4: Unemployment rate in % in the municipality of Iisalmi, the district Pohjois-Savo and Finland**

	1995	1996	1997	1998	1999	2000
Iisalmi	22.0	21.6	20.3	18.7	18.1	18.1
Pohjois-Savo	21.5	20.8	19.4	18.0	17.1	16.0
Finland	15.5	14.6	12.7	11.4	10.3	9.8

Source: Statistics Finland

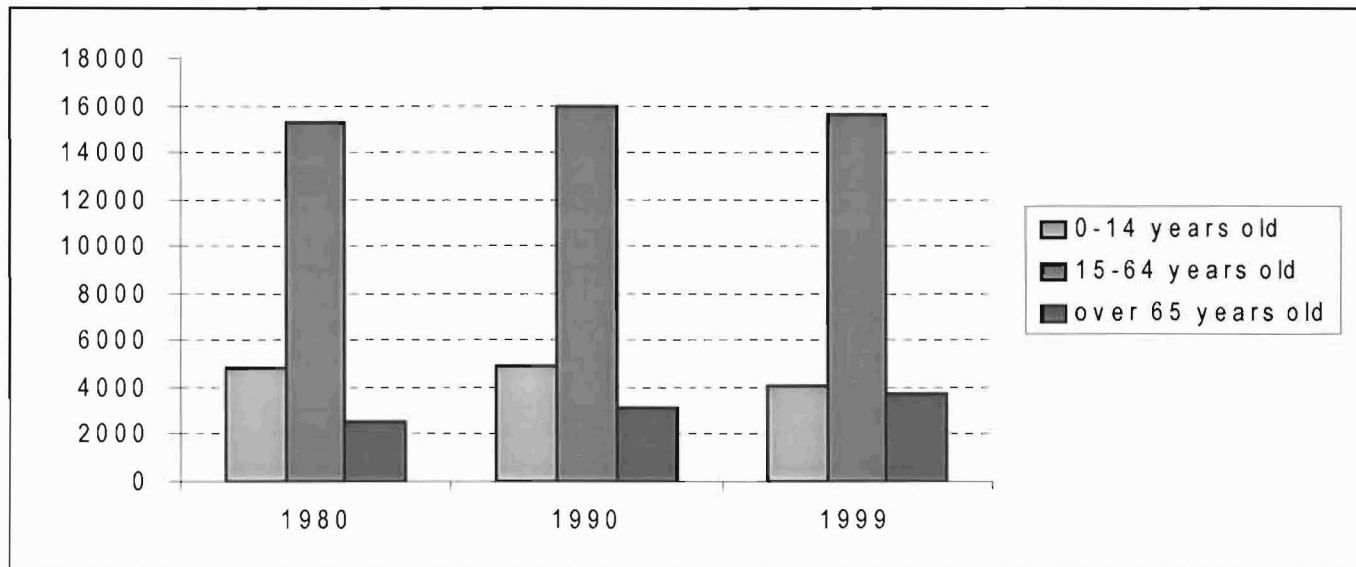
**Figure 2: Change of population in the municipality of Iisalmi and the province of Ylä-Savo between 1970 and 2000**



Source: Statistics Finland

Table 4 shows that the unemployment rate in the district of Pohjois-Savo was 18.1% in 2000 compared with an average of 9.8% for Finland. The unemployment rate in Finland dropped approximately 6% between 1995 and 2000. In Iisalmi, a decrease of only 4% was registered. Although the Finnish government provides support measures for economic development and job creation in rural regions, unemployment rates are still higher than for the whole of Finland – which includes urban areas such as the Helsinki region.

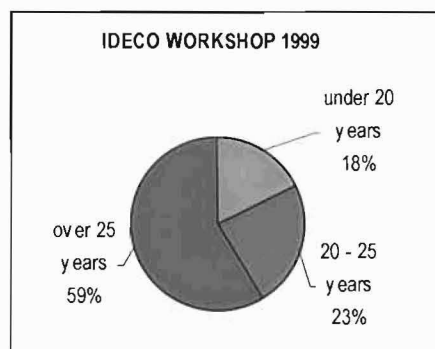
Figure 3: Comparison of the age structure in the municipality of Iisalmi in 1980, 1990 and 1999



Source: Statistics Finland

Figure 4: Comparison of the age structure in the IDECO workshop in 1999 and 2000

In figure 4, the age structure of IDECO workshop employees is shown. Please note that in 2000, the number of people between 20 and 25 years increased by over a half.



Source: IDECO workshop

Table 5: Structure of labour force in the workshop

	1999	2000
Combination Support	64	91
Iisalmi Youth Aid	61	38
Employment support	42	29
Iisalmi Town	25	23
Summer Workers	19	17
Trainees	17	17
Indenture	6	9
Students	5	8
Work Experience	3	7
<b>Total</b>	<b>242</b>	<b>239</b>

Source: IDECO workshop

Table 5 provides an overview of the labor force structure in IDECO workshops. Most employees are receiving combined support, a special measure from the Ministry of Labor to reduce unemployment. In 1999, 61 people were employed directly by

the IYA. In 2000, only 38 were employed due to a lack of funding. Furthermore, the number of people receiving employment support dropped after the Finnish government implemented a new legislation to reduce such funding.

### Evaluation

#### Human Factors

The Iisalmi Youth Aid Association has certainly contributed in improving social and economic conditions for young people in the region since its foundation in 1974. Manager Hannele Tams and her team have managed an increasing number of projects to support young people in rural areas. The KEHYPAJA project succeeded in creating new employment possibilities for young people, and in making the IYA one of the leading employers in Iisalmi with a total of 239 employees in the year 2000.

The KEHYPAJA housing project – an innovative idea to improve the living conditions of young people in the municipality of Iisalmi, was widely considered a success.

The IYA helps young people enhance their professional skills by organizing workshops providing vocational training. These youths normally lack higher education so these workshops also improve their chances in the labor market. The centers offer a wide variety of workshops, thus allowing young people to learn new social skills and improve their qualifications.

#### Resources and Environment

There are no major environmental problems in the area of Iisalmi. The project does not make special use of natural or biophysical resources. However, the KEHYPAJA project includes an environmentally friendly workshop that processes and recycles second-hand articles and thus contributes to the promotion of ecological thinking.

#### The Economic Viability

The IYA is a non-profit organization that can only cover a small part of its own expenses. The KEHYPAJA project was created with public support from governmental agencies and through donations from private companies, such as the Finnish Railway. The Finnish Ministry of Labor provided approximately 50% of the funding, of which a large percentage was for the salaries of workshop employees.

The KEHYPAJA project will survive as long as it receives the support of the Finnish government. A shortage of public funding over the past years has forced the IYA to reduce its number of employees. The project's long-term economic viability is questionable due to this strong dependency on public funding.

#### Political Factors

Created by locals, IYA participants have actively influenced the project's development and expansion. The local municipality supports IYA projects because of the important role the Association plays in improving the living conditions of young social outcasts. Iisalmi politicians have recognized the importance of keeping young people in rural regions, and have launched initiatives to keep them there.

#### The Project's Technology Potential

The idea of recycling second-hand articles for development work purposes can be considered innovative. The same idea was successfully implemented in Ireland by an IYA partner organization – proving that the project is transferable and applicable in other European countries.

The project could, however, make better use of IT technology and train young people in that sector.

#### Summary

The Iisalmi Youth Aid Association and its KEHYPAJA project have improved the living and social conditions of young delinquents in rural areas. The project depends heavily on outside funding and is not economically self-sustainable. It can, however, be seen as an investment in human capital which plays an important role in the development of a rural area. Through its social projects, the IYA has contributed in keeping young people attracted to rural areas.

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### Introduction

Innovative projects involving new and alternative power sources, such as wind energy, are becoming increasingly important. According to the "Global Wind Energy Market Report," wind energy is becoming more and more popular in Europe and several very large projects are currently under development.

In 1996, the EU LEADER program subsidized a small-scale project called "Pitch Wind Energy for Farmers." The project sought to investigate the economic feasibility of individual wind power plants for private users. It was assumed that wind energy would reduce energy costs, as well as provide a convenient energy solution for remote areas and those not connected to the public grid.

As part of the LEADER project, a windmill (see image 1) was installed as a pilot project at a farm in Tanum, Sweden. The Pitch Wind AB Company, a provider of small-scale wind energy systems, carried out the installation and monitoring of the windmill.

### Description of the area

Tanum, on the west coast of Sweden in the district of Norra Bohuslän, is approximately a two-hours drive from Gothenburg. The municipality that formerly had 12,069 inhabitants in 1999 has since been facing a strong population decline. The district Norra Bohuslän, which covers an area of 2,185 km<sup>2</sup> and has 43,018 inhabitants, is sparsely populated with only 19 inhabitants per km<sup>2</sup>.

The area of the LEADER program includes Tanum, Strömstad, Sotenäs and Munkedal - all small municipalities in the region of Svenska Lands-bydsomraden. The farm in Tanum (see image 2) where the first pitch wind plant was erected is near the small village of Munkedal.

Widely scattered small-scale farms, typical of Scandinavia, mainly make up the rural landscape of Norra Bohuslän. Picturesque towns and villages adorn the coastline that serves as a major weekend destination for residents of Gothenburg and Stockholm. Tourism and recreational activities in the area are becoming increasingly important.



Image 1: Pitch wind mill

### Small Wind Energy Systems

Small wind energy systems are designed for domestic use and may be an alternative, environmentally friendly source of electricity production for remote rural areas.

These systems can be used in two ways: 1) as a grid-connected system consisting of a wind plant linked to a public electricity distribution system 2) a stand-alone sys-



Image 2: Farm in Tanum

tem that is not connected to the public grid.

A grid-connected wind turbine reduces the consumption of public electricity. If the turbine cannot deliver the amount of energy needed, public electricity is used. If a wind system produces more electricity than a household requires, the excess can be sold to the public grid. Modern interconnections make the switching process automatic.

The alternative model, a stand-alone wind energy system, is appropriate for homeowners, farmers and small communities that don't have access to the public grid.

According to the U.S. Department of Energy (DOE), both systems require the necessities cited below, to operate properly.

### **Requirements for Stand-Alone Systems:**

*One must live in an area with average annual wind speeds of at least 4.0 meters per second. A grid connection is not available or can*

*only be made through an expensive extension. The cost of running a power line to a remote site to connect with the utility grid can be prohibitive, ranging from \$15,000 - \$50,000 per mile, depending on the terrain. There must be an interest in gaining energy independence from the utility. There must be a desire to reduce the environmental impact of electricity production. There must be an acknowledgement of the intermittent nature of wind power and have a strategy for using intermittent resources to meet personal power needs.*

### **Requirements for Grid-Connected Systems:**

*One must live in an area with average annual wind speeds of at least 4.5 meters per second. Utility-supplied electricity is expensive in the area (about 10 to 15 cents per kilowatt hour). The utility's requirements for connecting a system to its grid are not prohibitively expensive. Local building codes or*

*covenants allow one to legally erect a wind turbine on personal property. One is comfortable with the long-term investment.*

Setting up a wind energy plant requires a significant initial investment with a long payback period. In the long run, these wind energy plants may be cheaper than conventional energy systems if energy costs continue rising. However, other costs such as maintenance and repair have to be taken into account.

### **Technical Standards of Small Wind Energy Systems**

All wind plants consist of a turbine, a tower, wiring, and regulation components such as controllers, inverters, and/or batteries. Table 1 provides an overview of the technical details for the wind power plants promoted by Pitch Wind AB. The text below explains the individual parts of the wind system.

### **Wind Turbines**

Wind turbines consist of a rotor, a

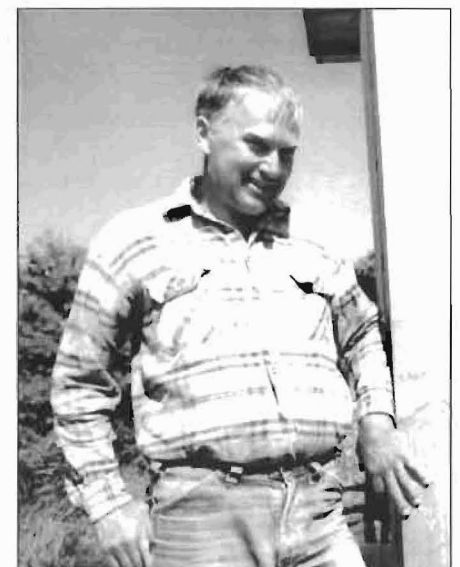


Image 3: Farmer Andersson Larsson

# PITCH WIND

## Small scale wind power

generator mounted on a frame, and a tail. Through the spinning blades, the rotor captures the kinetic energy of the wind and converts it to drive the generator. Rotors can have two or three blades; Pitch Wind AB produces rotors with 2 blades. For example, a 1.5 kW wind turbine will meet the needs of a home requiring 300 kWh per month, in a location with average annual wind speed of approximately 6 meters-per-second. Most turbines have automatic speed-controlling systems to prevent over-spinning in very high winds.

### Towers

The higher the tower, the more power the wind system can produce. A general rule is to install a wind turbine on a tower with the bottom of the rotor blades at least 10 meters above any obstacle within 90 meters of it. Experiments have shown that higher rates of return are produced when the tower is installed as high up as possible. For example, to raise a 10-kW generator from a 20 m tower height to a 30 m tower it involves a 10% increase in the overall system cost, but it can produce 25% more power.

### Storage of Electricity

Stand-alone systems require batteries and a charge controller to store additional power generated for use when there is no wind. Deep-cycle batteries can discharge and recharge 80% of their capacity hundreds of times; therefore they are a good option for remote renewable energy systems. Shallow-cycle batteries should not be used in renewable energy systems because of

Model	PW 30/14*	PW 20/14
<b>TURBINE</b>		
Diameter	14m	14m
Swept area	154m <sup>2</sup>	154m <sup>2</sup>
Number of blades	2	2
Pitch control	Passive pitch	Passive pitch
<b>TOWER</b>		
Hub height		
Concrete tower	30 m.	30 m.
Lattice tower	40-60 m.	40-60 m.
<b>YAW CONTROL</b>		
Wind wheels	2 pcs. ø 1 m.	2 pcs. ø 1m.
Gear	Worm gear	Worm gear
<b>OPERATING DATA</b>		
Cut-in wind speed	3 m/s	3 m/s
Rated wind speed	10 m/s	9 m/s
Cut-out wind speed	None	None
<b>GENERATOR</b>		
Type	Permanent-magnet generator	
Number of poles	66	66
Rated power	30 kW	20 kW
Voltage	0-400 VAC	0-400 VAC
Rated frequency	41,25	41,25
Rated speed	75 rpm	75 rpm
<b>ELECTRIC SYSTEM</b>		
Frequency inverter	Transistor IGBT	Thyristortype
Operation	Yes	Yes
Stand Alone	Yes	No
<b>MASS WEIGHTS</b>		
Concrete tower	16100 kg.	16100 kg.
Lattice Tower	3-10 tons	3-10 tons
Turbine	500 kg.	500 kg.
Generator	900 kg.	900 kg.
Nacelle	300 kg.	300 kg.
Complete towerhead	1700 kg.	1700 kg.

Table 1: Technical data for pitch wind plants

their short life. However, batteries for non-grid connected wind turbines are very heavy, many include poisonous substances (heavy metals) and have to be replaced after a few thousand recharge cycles. All this adds to the costs of non-grid connected wind turbines.

In grid-connected systems no batteries are needed, and the only additional equipment required is an inverter, which makes the turbine output electrically compatible with the public grid.

### Hybrid Wind Systems

A hybrid system combines the wind power plant with another source of energy such as that from photovoltaic technologies or diesel generators like in the case of the hybrid system solution offered by Pitch Wind AB. The diesel generator produces power when the wind speed is too low.

### Wind Energy for Farms – The LEADER project

Under the LEADER program, farmer Anderson Larsson received financial assistance to install a pitch windmill on his farm in Tanum. Mr. Larsson's farm covers 35 hectares of land that is mainly used for crop production. His farm specializes in pig breeding and requires a large amount of energy to heat the piglet stables. Mr. Larsson said his water and energy bills have always been a financial burden

When Mr. Larsson heard about wind energy as an alternative power source, he developed a plan to install such a plant on his property. In 1995, he contacted the regional LEADER office in Norra

Bohuslän for assistance and funding. The LEADER initiative promised to subsidize Mr. Larsson and, at the same time, test the economic feasibility of a small-scale wind power station for an individual farmer.

Mr. Larsson promoted the idea to other farmers who joined the project. The group of Swedish farmers went to visit Danish pitch wind projects before installing the windmills on their properties. It took two years of conceptual planning before Mr. Larsson could install the wind power plant on his farm in 1997. The entire plant was built within two months.

The windmill was designed and erected by engineers of Sweden's Pitch Wind AB, a company specializing in the production of small wind power plants with up to approximately 20 kW. Mr. Larsson was responsible for preparing the site with an access road and a foundation for the windmill tower. Pitch Wind AB took care of the installation and technical equipment. A grid-connected system was installed, allowing Mr. Larsson use of the public grid during calm wind periods. The total sum of the wind power plant and its installation amounted to SKR 200.000, of which SKR 90.000 came from the LEADER project.

Mr. Larsson expressed his satisfaction with the output of the wind power system, saying it had helped him reduce energy costs. According to Pitch Wind AB engineer Lars Akkeson, a windmill produces up to 100.000 KW per year. A four-person family, for example, needs only 20.000 KW per year.



Image 4: Maintaining the windmill

The Pitch Wind AB system enables a steady power supply with a fully automatic operation. Mr. Larsson said: "“Since its installation, the plant has not required special maintenance or repair besides the normal monitoring activities carried out by a Pitch Wind AB engineer.”"

### Company Profile of Pitch Wind AB and the Situation for Pitch Wind Power in Sweden

To provide a more detailed insight into the situation of small wind system projects in Sweden and their future, the company Pitch Wind AB, as one of the few providers of small wind power plants, will be analyzed below:

The company was set up in 1996 with ownership shared between ArkMek Group, Startinvest AB and private shareholders. Their headquarters are in Kinna, some 60 km south of Gothenburg. One of the main figures is Sven Svenning, a leading engineer and inventor,

who was a pioneer in the development of Swedish wind energy. Pitch Wind AB is connected to a group of companies with considerable production resources and technical know-how. The machine park includes the equipment and tools required for the manufacturing of high quality products.

Beside conventional windmills, the company offers a hybrid system solution with a diesel generator for remote areas that are not connected to the public grid.

Pitch Wind AB has installed 10 windmills up until 2001, most of which are located in southern Sweden. One windmill was installed in the northern Swedish town of Kiruna. The company's technical staff provides supervision and controlling for the windmills, including the monthly monitoring of the operation. In general, Pitch Wind plants operate independently and require little maintenance.

In spite of the relatively high quality and technical standards of its windmills, the company declared bankruptcy in 2001 when it failed to receive new orders. Several reasons lead to the bankruptcy: In Sweden, Pitch Wind power plants do not receive any governmental support such as tax credits or financial assistance for their installation. In fact, in 2000, the Swedish government passed a new law, exempting farmers from energy taxes and reducing their energy costs significantly. This ruined the market for alternative and more cost intensive power supply systems such as wind energy.

In addition, installation costs for windmills are still very high and it

takes many years to break-even financially. For example, the total investment for a Pitch Wind plant is approximately SKR 300.000. Most of Sweden is connected to the public grid, providing less costly energy than wind plants. For Swedes living in remote areas without connections to the public grid, wind power is too expensive and therefore not the best solution. Private individuals can usually not afford to set up a windmill without external financing.

In spite of the difficulties, Lars Akesson and other stakeholders from Pitch Wind AB intend to continue promoting small grid-independent wind converters. However, they are looking for customers abroad (Estonia, Russia) due to the difficult market situation in Sweden. The group is presently working on a new marketing concept for Pitch Wind AB, focusing on transnational co-operations. To avoid high logistical costs for controlling and supervising wind power plants outside Sweden, engineers from Pitch Wind AB Sweden will train local technicians in the maintenance of local windmills. However, the problem of high investment costs and the dependence on outside funding remains. For example, Mr. Larsson would never have been able to finance the project without the help of LEADER. Furthermore, the need for wind energy in Sweden is questionable considering the stable condition of the country's energy market.

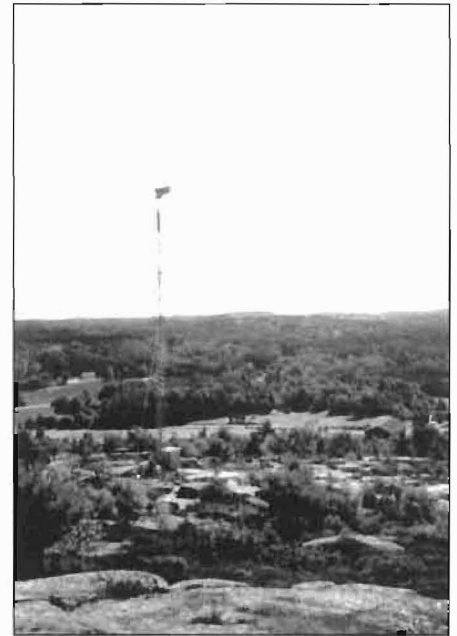
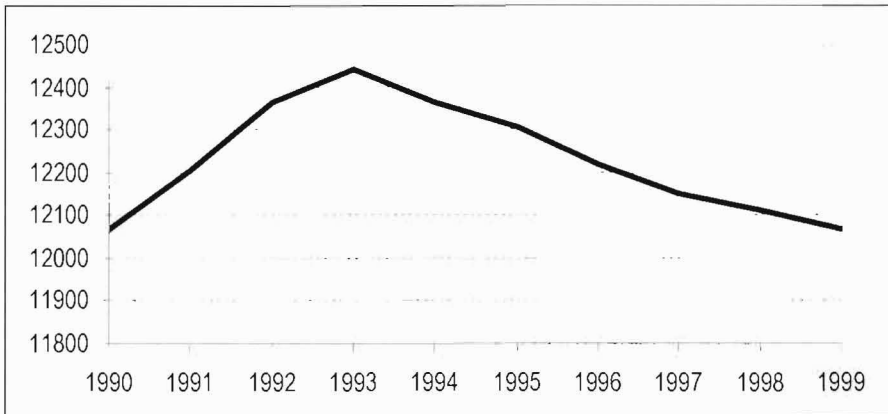


Image 5: Mr. Larsson's farm in Tanum

### Statistical data

Figure 1: Population change in the municipality of Tanum in 1990-1999



Source: Statistics Sweden

Figure 1 and 2 shows trends in the population change in the municipality of Tanum in southern Sweden. Figure 1, which gives an overview of the trends from 1990 to 1999, shows a decrease in the population over the past years. After peaking at more than 12,400 inhabitants, the numbers are now decreasing.

Table 2 shows that the birth deficit increased at a high rate after 1992. In the last decade, only two years have more births than deaths. In the last three years, a small number of people migrated to Tanum.

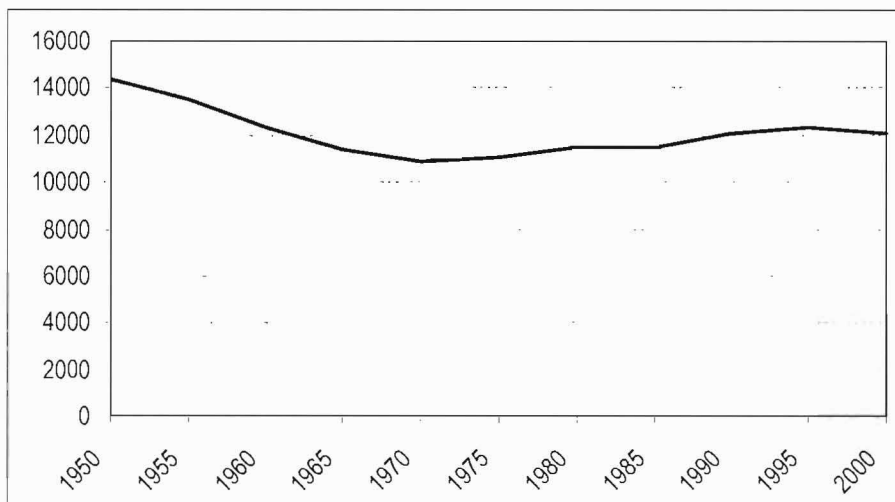
Figure 2 illustrates the population growth from 1950 to 2000. During the 1970s and 1980s, the number of inhabitants decreased. In 1970, there were only 10,852 people living in the municipality of Tanum. The demographic problems in the municipality of Tanum are typical of many rural areas in Sweden, which are facing serious depopulation and aging.

Table 2: Population change in the municipality of Tanum

	Population Change		
	Population	births minus deaths	net migration
1990	12068	-15	175
1991	12203	15	120
1992	12366	21	140
1993	12443	-37	113
1994	12362	-59	-21
1995	12306	-36	-21
1996	12216	-67	-21
1997	12152	-74	10
1998	12111	-73	40
1999	12069	-54	16

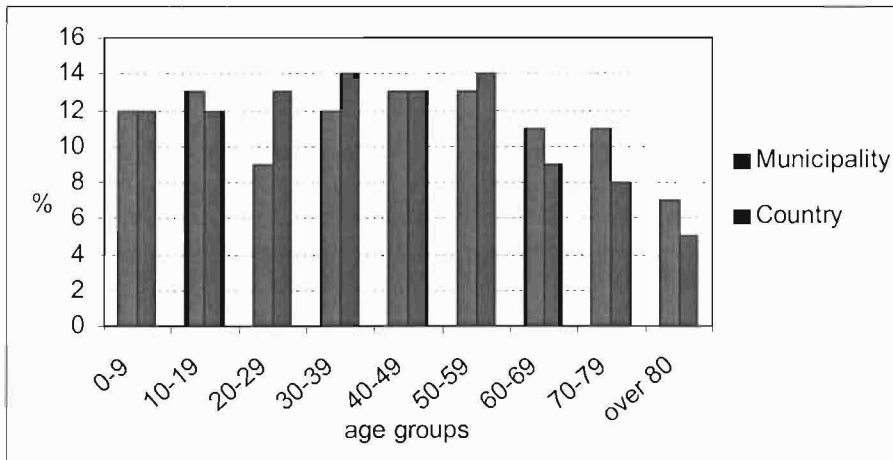
Source: Statistics Sweden

Figure 2: Population change in the municipality of Tanum in 1950-2000



Source: Statistics Sweden

Figure 3: Comparison of the age structure in the municipality of Tanum and Sweden in 1999



Source: Statistics Sweden

Table 3: Education level in the municipality of Tanum and Sweden

Highest level	Municipality in %	Country in %
Compulsory school	39	30
Upper sec. school	43	44
Higher education:	16	24
Third level < 3 years	9	13
Third level 3 years or more	7	10
Postgraduate	0	1
<b>Total population, age 16-64 years</b>	<b>100</b>	<b>100</b>

Source: Statistics Sweden

Table 3 shows the education level in the municipality of Tanum compared to that of the whole of Sweden. As the numbers illustrate, the level of higher education is below the average in Tanum. A reason for this is that people with higher education degrees are moving to urban centers. Furthermore, young people from rural areas who are going to universities will most probably stay in that city. This is because employment for academics in the countryside is limited.

Table 4 gives an overview of energy sources in Sweden. Wind power plays a very small role in the entire production, but the numbers have increased significantly between 1994 and 1999. The production rates for nuclear power and conventional thermal power have declined. Waterpower is the most important source of electricity in Sweden, due to the natural richness in water resources in the northern part of the country.

Table 4: Net energy production in Sweden (in GWH)

	1994	1995	1996	1997	1998	1999
<b>Water power</b>	58,375	67,247	51,100	68,227	73,846	70,902
<b>Nuclear power</b>	70,086	66,978	71,362	66,914	70,500	70,200
<b>Conventional thermal power</b>	10,005	9,823	13,916	9,896	9,915	9,469
<b>Wind power</b>	75	105	144	203	308	371
<b>Total production</b>	<b>138,389</b>	<b>144,127</b>	<b>136,506</b>	<b>145,221</b>	<b>154,552</b>	<b>150,863</b>

Source: Statistics Sweden



Table 5: Wind Energy Markets (Capacity in Megawatt)

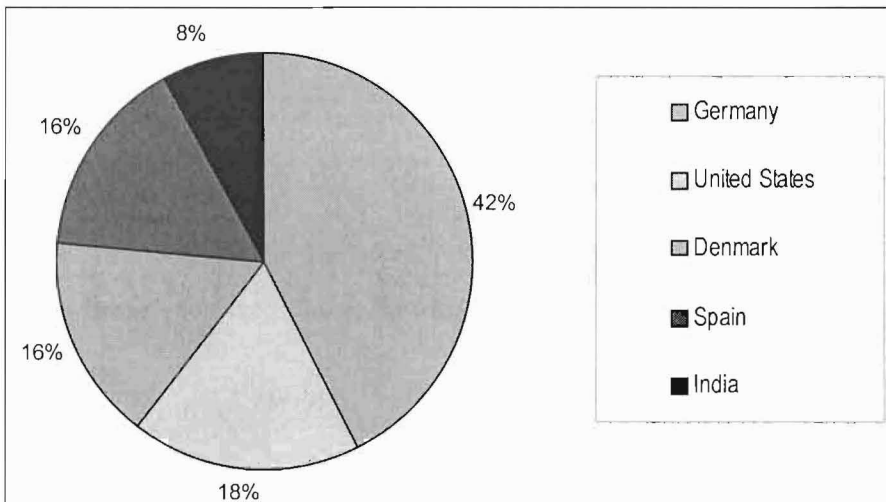
	1999		2000*	
	Additions	Total	Additions	Total
<b>Germany</b>	1200	4445	1668	6113
<b>United States</b>	732	2500	55	2554
<b>Denmark</b>	650	1748	552	2300
<b>Spain</b>	300	1522	713	2235
<b>India</b>	62	1077	90	1167
<b>Netherlands</b>	53	410	39	449
<b>Italy</b>	50	282	145	427
<b>UK</b>	18	343	63	406
<b>China</b>	76	265	-	265
<b>Sweden</b>	40	195	36	231

\* These figures are initial end-of-year estimates by national wind and renewable energy associations, and other sources. Additions only include projects that have been installed and are operating in the calendar year.

Source: Global Wind Energy Market Report 2000

Table 5 and figure 4 give an overview of the wind energy markets in leading countries, as was analyzed in the Global Wind Energy Market Report. It shows that the market for wind energy is growing. When compared to 1999, all countries in table 5 increased their capacity for wind energy in the year 2000. Germany is the world market leader in 2000 with a 6,113 MW (Mega Watt) capacity, followed by the United States with a capacity of 2,554 MW. Sweden increased its capacity from 195 MW in 1999 to 231 MW by the end of 2000.

Figure 4: Top Five Wind Energy Markets in 2000 (Capacity in Megawatt)



Source: Global Wind Energy Market Report 2000

### Evaluation

#### Human factors

A single person, Mr. Larsson, initiated the pilot project on his farm in Tanum. With the financial support of the EU LEADER program, he installed a Pitch Wind Plant. Mr. Larsson took the initiative of promoting his idea to other farmers of the region, and organized a trip for to Denmark for everyone to visit and learn more about wind systems there. A second windmill, also financed by LEADER, was set up on his cousin's farm. The project did not, however, create new jobs in the area. Critically observed, it proved to be an expensive hobby for farmer Larsson and had no obvious positive impact on the area.

#### Resources and Environment

Wind energy may be an alternative power source for the future. When analyzing wind energy projects, they have to be divided into two groups: 1) small wind energy systems for private users, such as pitch wind and 2) large-scale wind power projects such as the big wind parks along the coastline.

A study carried out in the United States, discovered that the use of wind energy instead of conventional energy sources over a period of 20 years had prevented the release of approximately 40 metric tons of carbon dioxide, 362 kilograms of nitrogen oxide and 127 kilograms of sulfur dioxide into the atmosphere. The project evaluated in this case study belongs to the first category of small private wind generators. The impact these small systems have on the environment

is minimal compared to large wind parks.

#### The Economic Viability

The windmill project on the farm in Tanum had a total investment budget of approximately 200,000 SEK, of which LEADER provided half. Mr. Larsson financed the other half from private sources. Overall, the project was not economically profitable. Given the current low energy costs and special energy tax system for Swedish farmers, wind power plants for individuals are unable to compete with conventional energy sources.

The main problems are the high installation costs that cannot be recovered by private households or farmers. As long as a connection to the public grid exists, wind power plants are a much too cost intensive investments and can not be recommended from an economical standpoint. Although the financial problem is still an issue, windmills may be a solution for remote areas that are not connected to the public grid. But the bankruptcy of the company Pitch Wind AB indicates that there is presently no demand for such wind power systems.

#### Political Factors

Political factors played a minimal role in the project. The wind project at a farm in Tanum was mainly a one-person-show carried out by Mr. Larsson and partly financed by LEADER. It was not included in any local or regional development plans. It is questionable if the local political elite even knew about the project.

#### The Project's Technological Potential

As already mentioned above, wind energy is an alternative source of energy. The pilot project on Mr. Larsson's farm looked into the feasibility of a small wind power system for family use. The windmill operated without disturbances and required minimal maintenance. When combined with the public grid, it offered an environmentally friendly energy source, but was far from being economically suitable. The project could benefit from technology and experience transfers with other similar projects.

#### Summary

The LEADER pitch wind project cannot be considered successful. The project did not help local development in the form of new employment opportunities, nor did it improve the quality of life of the local population. In fact, it only benefited a small group of people, who could realize their private plans for alternative energy generation. Although it has a positive impact on the environment, this new technology of small-scale wind generators cannot survive in the present market situation. The outlook for small-scale wind systems may improve in the future, providing energy costs go up.

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# Sunflower Farm

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### Introduction

Sunflower Farm houses the headquarters of Poland's Ecological Technology Center and the ECEAT (European Center for Ecological Agriculture and Tourism). It is situated in the small village of Stryszow in the province of Malopolski, some 35 km south of Krakow.

The municipality has approximately 1,000 inhabitants, including six small and medium size villages with a total population of about 12,000. Stryszow is surrounded by a picturesque patchwork of small fields and forests, small rivers and streams. At the foot of the Tatra Mountains, the hilly character of the area is typical of southern Poland (see image 1).

The province of Malopolski is a rural area with only small industries. The majority of the population works in agriculture, mostly on small family farms covering some three to five hectares. These farms primarily maintain livestock, such as cattle and goats, and produce milk and cheese as well as a variety of vegetables and grains.



Image 1: View on the village Stryszow

### Stryszow - Center for Rural Development

In December 1998, local authorities of the Stryszow community announced their intentions of transforming the area into an "ecological community". The proposal came from Jadwiga Lopata (see image 2), the president of ECEAT-Poland. She has been living in the village for many years with her son Krzysztof, the founder of the Ecological Technology Center (see image 3). Together they bought an old house, called it Sunflower Farm, and converted it into the administrative center of their company.

They sought to introduce ecological ideas to the municipality, such as organic farming, environmental education, eco-tourism as well as sustain-



Image 2: Ms. Jadwiga Lopata (manager of ECEAT Poland) with interviewer Anja Wickenhagen

# Sunflower Farm Eco Technology Center and Tourism on Farms

able energy use and waste treatment. They also focused on the establishment of eco-farms for tourism and nature conservation purposes. In 1999, the tourism project was started after several farms began organic production. In Stryszow, tourism farms welcomed their first visitors, most of whom were foreigners. The community became a Polish example of rural tourism and ecological planning for municipalities.

## History of ECEAT-Poland

ECEAT-Poland is part of a Europe-wide network of organizations engaged in ecological tourism. Ms. Lopata is the founder and key figure of ECEAT-Poland. She first thought of combining organic farming and tourism to preserve the landscape and traditional family farms, some ten-years-ago. She never doubted people would appreciate the experience of spending their recreational time on family farms, enjoying a beautiful and intact landscape. Furthermore, she believed that could give farmers an additional income. In order to implement her ideas, Ms. Lopata signed a co-operation agreement with ECEAT-Netherlands and then applied for European Union (EU) funding.

In January 1993, the Eco-Agro-Tourism (EAT) pilot project was launched in Poland together with a national coordination team. This organization later became the independent non-governmental association ECEAT-Poland. Ms. Lopata was the leader of this team and one of the initiators of the EAT project. In her role as president, Ms. Lopata actively promoted the project at various national and local meetings. She also played a major role in the prepara-



Image 3: Sunflower Farm - Ecotechnology Center in Stryszow

tion of ECEAT-Poland's organizational framework.

At first, the project included 15 farms. After it was fully established and promoted within Poland, a further 130 farms joined the project and became ECEAT-Poland members. In 1994, the organization achieved its first goal: a favorable change in tax laws for farmers.

To better spread the idea of eco-tourism, ECEAT-Poland developed marketing strategies and activities. They organized ten successful student camps as well as a farm project from 1995 to 1996 to raise the ecological awareness of teachers.

Since 1996, ECEAT-Poland organizes a project called "Our Common Campaign for Ecological Farmers in Poland." This campaign led to the 1998 foundation of the Regional Union for Organic Agriculture and the National Coalition of Organic Agriculture.

Since January 1997, ECEAT-Poland has collaborated in the Ecological Tourism Project in the Karkonosze Protected Area. To increase ecological tourism and agriculture in the Bialowieza National Park, ECEAT-Poland have been involved in the

PAN Park Project since 1998 - together with the World Wildlife Fund (WWF).

## Objectives and Targets of ECEAT-Poland

ECEAT-Poland named their main goals as 1) the introduction of eco-tourism in rural Poland 2) to encourage organic farming 3) to support family farms and conserve the Polish countryside. Their projects are designed to protect the environment while benefiting both farmers and visitors. Poland has unspoiled nature and a high biodiversity due to the existence of small-scale family farms and the restricted use of chemicals.

ECEAT-Poland is the only NGO in the country combining tourism with ecology. The organization helps strengthen ecological cooperation between farmers and consumers and also provides financial support for small farmers. Furthermore, ECEAT-Poland is responsible for the marketing and promoting of organic farming products. The organization offers specialized training in organic farming, eco-tourism and ecological lifestyles.

# Sunflower Farm Eco Technology Center and Tourism on Farms



Image 4: Transportation in rural areas

## Organic Farms in Poland

A farm must convert to organic farming if it wishes to join the ECEAT-Poland eco-tourism project. This conversion process takes approximately two years. In March 2001, the Polish government passed legislation obliging all organic products to obtain a special certificate. Farms fulfilling all necessary organic prerequisites can register with the internationally recognized Ekoland-Association of Organic Producers in Poland. Ekoland also provides monitoring and training for farmers. Ekoland charges a membership fee of 20 US\$ per year while the certification fee is based on the farm's size – for example, a 1-5 hectares farm will be charged 37.5 to 45 US\$.

A report by GAIN (Global Agricultural Information Network) said: *“the Polish Department of Agriculture estimates that there will be ten thousand organic farms in Poland by the year 2009, occupying 0.5 percent of the agricultural land.”*

In 2001, Polish farms could apply for

subsidies of 450 Zł (around \$108) for each 100 hectares of arable land, 150 Zł (\$38) for each hectare of pasture or meadow and 600 Zł (\$150) for each hectare of fruit and vegetable plantation. Certification costs are also partially subsidized by the government. The level of subsidies encourages farmers to make this conversion when taking into account the substantial income potential of organic farming in Poland. No other agricultural sector in Poland receives this kind of direct financial support from the government.

ECEAT provides hands-on training for farmers wishing to convert their farms and, at the same time, also profits from first-hand experiences of the farmers they have trained. If a farm meets at least 50% of Ekoland's requirements, it can register with the association's tourist program.

## Tourism on Farms

Tourism gives farmers additional income opportunities and helps them survive the competitive agricultural market. ECEAT-Poland helps local farmers set up tourism projects, pro-

viding they put farming at the forefront and consider tourism a secondary activity. *“Operating a simple bed-and-breakfast in the country is short-sighted because it does not help preserve the landscape and it is an economical risk,”* said Lopata.

When the project was launched in 1993, it supported 15 farms of which 14 are still collaborating with ECEAT. However, Ms. Lopata estimates that around 2 to 3% of the farmers registered with Ekoland and ECEAT, are no longer participating in the program. This very low rate shows the sustainability of the project and acceptance of organic farming methods.

Most of the 400 tourists that spent their holidays on Polish farms in 1993 were from the Netherlands. This is due to the close cooperation between the ECEAT groups of both countries. Over the following years, the number of farms and visitors increased (compare figure 2). Currently, some 130 farms are members of ECEAT-Poland and the number of visitors has exceeded 4,000. It is also remarkable that the number of Polish visitors increased over the past years. In 2000, approximately 35% of the visitors were Polish and 65% were foreigners.

These farms are mostly in mountainous areas in southern Poland. They



Image 5: A farmer family in

# Sunflower Farm Eco Technology Center and Tourism on Farms

offer recreation, introduce visitors to the culture and tradition of the rural area and promote the organic food products sold at the farms. Because organic products are relatively new in Poland, natives are not as enthusiastic about health foods as Western Europeans are. Over the past years, organic products were in big demand in Western Europe.

To introduce alternative solutions in the areas of agriculture and tourism to a wider audience, ECEAT-Poland has used the Internet to advertise its products and was also represented at several tourism fairs in Poland. Polish and English media have reported on the organization and its mission. To further promote their project, ECEAT-Poland produces a yearly catalogue in cooperation with European tourist agencies.

## Funding ECEAT-Poland

ECEAT-Poland got off to a slow start when local authorities expressed little interest in supporting the project financially. Ms. Lopata then traveled and applied for funds in the Netherlands. The Dutch Embassy in Poland provides ECEAT with 10,000 Gulden (4,537.80 EUR) a year. Additional financial assistance comes from

the American Embassy (8,000 US\$ in 1999) and the Rockefeller Brothers Fund (which provided 25,000 US\$ in 1999 and 50,000 US\$ for the period 2000 to 2002). Although the local government has not provided financial support, it has contributed by covering ECEAT travel costs and offering meeting rooms at a local community office. To ensure new legislation for organic farms, the Polish government will subsidize farmers who wish to switch to organic produce as of March 2001. Farmers who are members of ECEAT-Poland give 10% of their income from tourism to the organization. Most of this money is spent on the promotion of farms and towards the production and distribution of a monthly newsletter.

## Problems

One problem ECEAT Poland are facing, is that it can't cater to the amount of farms wishing to join the program - Ms. Lopata said she received applications from 2,000 Polish farmers in the last year. The growth of the project is slow because it provides specialized training and administration. Also, in order to increase the number of farms participating in the program, the number of visitors has

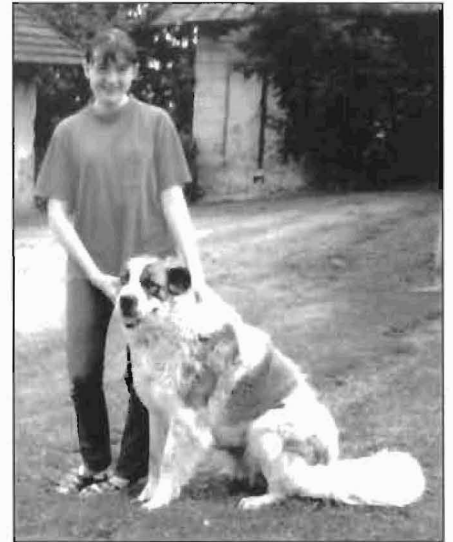


Image 6: Farmers daughter with dog

to increase at the same rate, and this is currently not the case.

Another problem is that farms included in ECEAT-Poland are small family farms of about 5 ha, with little profit and limited financial resources. Farmers are usually unable to get loans in a country with high interest rates of about 20%. Polish farmers are unable to compete with the high quality standards of holiday farms in Western Europe. They often lack the financial resources to offer facilities such as private bathrooms. Tourism infrastructure such as swimming pools, sports centers and restaurants are rare in rural Poland, thus limiting



Image 7: The new eco-house made of straw and clay with the sun dome





# Sunflower Farm Eco Technology Center and Tourism on Farms

activities for visitors to hiking and biking. The Polish government provides no support for eco-tourism.

According to Ms. Lopata, the Polish government supports the increase of large agricultural co-operatives and wants a decrease of small family farms. This would destroy the existing rich biodiversity due to the loss of the landscape's diversification. A lot of effort and innovative actions are required to make organic production and small-scale farming sustainable and competitive.

## Sunflower Farm's Ecological Technology Center

Krzysztof Wietrzny, Ms. Lopata's son and the founder of the Ecological Technology Center, began promoting and implementing ecological technology solutions in Poland a few years ago. These are environmentally friendly technologies including, among others, solar energy, wind power and biomass heated stoves. He seeks to provide people in rural areas with new technologies that are applicable

in small households (compare images 11 to 13).

Mr. Wietrzny is primarily involved in the marketing of the products. He cooperates with other companies that deliver material and carry out the installation of the plants. Sunflower Farm's Ecological Technology Center promotes its eco-technology products in Poland and abroad through the Internet. However, because the Internet is not widely available in rural Poland, the center also engages in other promotional activities to attract new customers. These activities include presentations at fairs, newspaper articles and invitations to the center's headquarters in Stryszow. At the exhibition complex of the Ecological Technology Center visitors can witness how new technologies function in practice. For example, the center staged exhibitions on the use of solar energy (see image 8) and on wastewater treatment machines (see image 12). The center also offers professional information and advice.

The complex boasts a low-energy house (see images 8 to 10), which was built in the traditional Polish farmer's style using straw and clay. The rooms are heated with solar energy coming from a sun dome, which creates a "greenhouse effect." The house is a combination of know-how acquired from old and new technologies. Such a house is an attractive alternative for farmers because construction costs are around 20-30% lower than for a normal building.

Mr. Wietrzny said: *"Nothing is more convincing for people who want to implement new solutions in their own household than the opportunity of checking them, testing and seeing them work in practice. It is especially true for ecological technologies, which are still seen in Poland as something strange and uncommon. Our rule is to teach and promote through experience. Nothing is more convincing than a positive experience. Positive experiences are easily remembered."*



Image 8: Sun dome with photovoltaic panels



Image 9: Entrance to the eco-house



Image 10: Visitors are getting professional advice by Mr. Wietrzny

# Sunflower Farm Eco Technology Center and Tourism on Farms



Image 11: The "Green House" in the permaculture garden

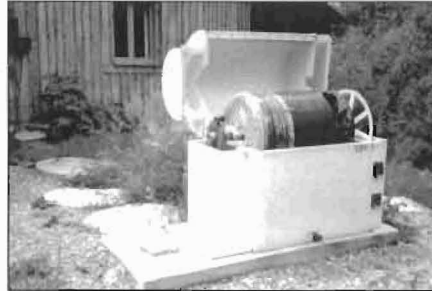


Image 12: Wastewater plant for one family household



Image 13: Solar panels on the roof for heating water and providing electricity

## The Ecological Technology Center- Pros and Cons

The center has developed an innovative idea for the improvement of rural development in an environmentally friendly way. The eco-house is a good alternative for farmers because straw, clay and wood are relatively inexpensive.

However, the center has not really succeeded in the promotion of solar energy, primarily because of the high investment costs of implementing photovoltaic solutions. Currently, solar energy is more expensive than electric energy. Mr. Wietrzny also complained about the Polish government's lack of interest in alternative technologies that results in a lack of funding and support for such projects. The Ecological Technology Center was founded by Mr. Wietrzny and still remains a one-man operation.

ECEAT, on the other hand, was more successful. In only a few years, ECEAT-Poland became a very successful operation and more than just an old farmhouse and the idealistic ideas of one woman. The center helped improve the quality of life of Polish farmers and created a network of eco-farms. ECEAT-Poland also contributed in improving the educational level of Polish farmers, by teaching tourism and organic farming

as well as providing technical assistance.

Ms. Lopata's commitment to the project is remarkable. She turned ECEAT-Poland into one of the leading eco-tourism companies in the country. However, the organization relies heavily on a single person. The project would be heavily affected if Ms. Lopata were to ever leave ECEAT.

The project has not been too successful in creating new jobs as ECEAT-Poland currently only employs some five people. The organization has, however, been successful in attracting more tourism to the area. According to the statistics, the number of people who spend their holidays on a farm has increased.

# Sunflower Farm Eco Technology Center and Tourism on Farms

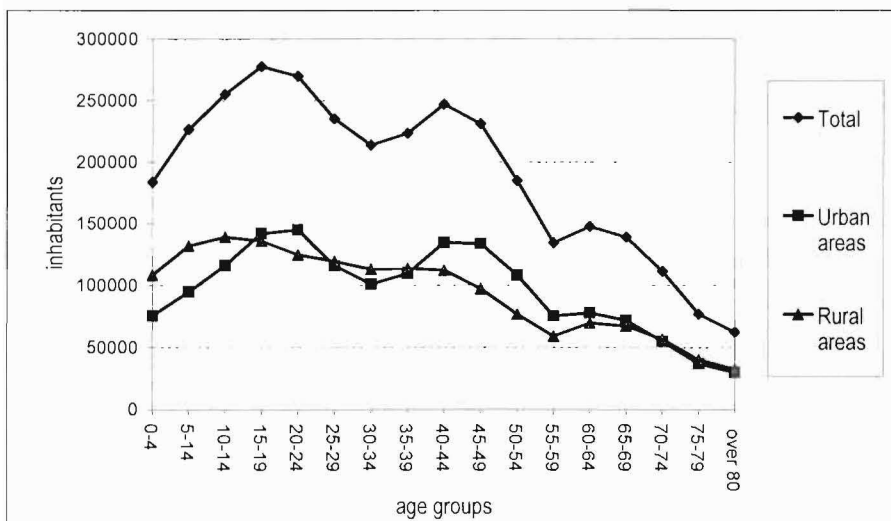
## Statistical data

Table 1: Population in the political district of Malopolski, the sub-region Tarnowski and the rural municipality of Strzysow in 1999

Specification	Total	Male	Female	Urban areas			Rural areas		
				total	male	female	total	male	female
Malopolski voivodship	3,222,525	1,569,254	1,653,271	1,624,170	772,333	851,837	1,598,355	796,921	801,434
Tarnowski powiat	180,057	89,263	90,794	13,132	6,460	6,672	166,925	82,803	84,122
Rural gmina Strzyszów	12,643	6,286	6,357	-	-	-	12,643	6,286	6,357

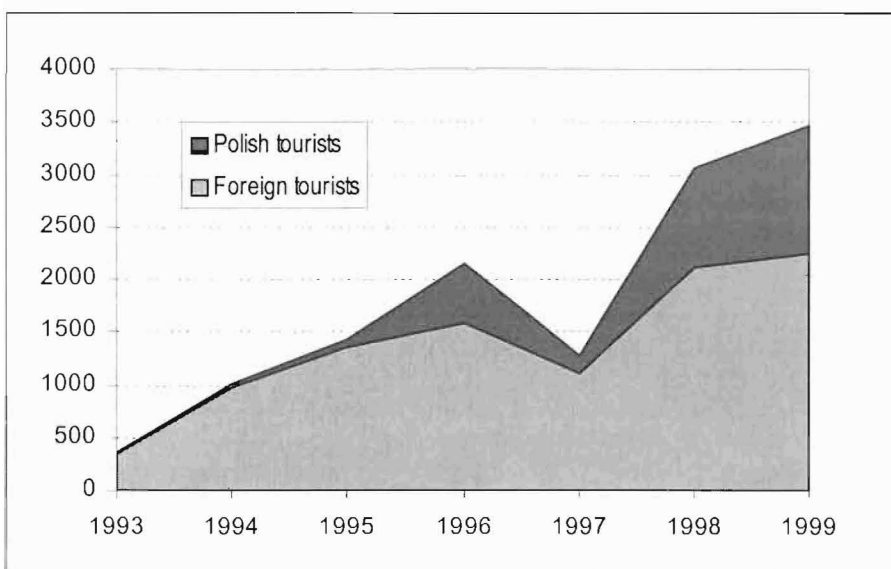
Source: GUS Central Statistical Office, Warszawa

Figure 1: Population by age groups in the region Malopolskie in 1999



Source: GUS Central Statistical Office, Warszawa

Figure 2: Visitor numbers for the ECEAT farms in Poland



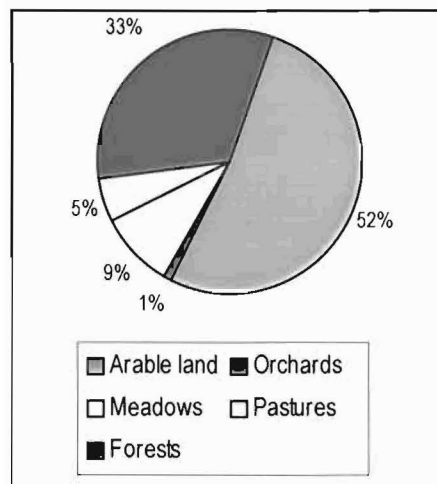
Source: ECEAT Poland

Table 1 presents demographic data from the Malopolski voivodship (regional level), the Tarnowski powiat (district level) and the rural gmina Strzysow (municipal level). About half of the population in the voivodship is rural; however, at the sub-regional level (Tarnowski powiat) more than 92% of the population is rural. Figure 1 shows the age structure of the statistical region of Malopolski, where the Strzysow community is situated. According to the chart, the average age of the total population is between 15-25 years. There is, however, a difference between rural and urban areas. The rural areas of the Malopolskie district have around 25,000 inhabitants less in this age group. This is because young people are leaving the villages and migrating to cities, to look for better education and job opportunities. Although the aging of the rural population has become a problem in Poland, it is not as critical as in other Western European countries.

Figure 2 gives an overview of visitor statistics from ECEAT-Poland. The number of visitors grew significantly over the past years. Remarkably, the number of Polish tourists has increased enormously.

# Sunflower Farm Eco Technology Center and Tourism on Farms

Figure 3: Land Use in Poland in 1999 (in Million Ha)



Source: GUS Central Statistical Office, Warszawa

erage of 0.21. Further, Poland has large forests and one third of the total area is covered by woodland.

Farmland occupies around 17.3 million ha of the total area in Poland and is mainly privately owned. There are more than two million small farms with less than 5 ha. Approximately one third of the agricultural land has farms in the order of 5 to 15 ha. Very few farms are larger than 1,000 ha. These farms, however, cover 10 of the agricultural land. The large farm holdings, exceeding 500 ha, are state-owned and function under co-operations.

Table 4: Organic farms registered with Ekoland

Year	Number of farms	Area in Hectares
1990	27	300
1991	49	550
1992	94	1,240
1993	174	2,170
1994	225	3,540
1996	236	6,855
1997	207	6,010
1998	181	5,546

Source: Ekoland

Farmers Association, Ekoland, and the Polish Association of Organic Farming (Polskie Towarzystwo Rolnictwa Ekologicznego or PTRE), which was established in 1993.

Table 4 indicates that in 1999 approximately 555 farms operated in organic production, covering an area of almost 10,000 hectares. The number is low when compared to the total agricultural area. Organic farming in Poland is still in a starting phase. Primarily small family farms practice organic production while the large state-owned farms are practicing intensive agriculture.

Table 1: Size of Farm Holdings in Poland

Classification of agricultural land (hectares)	Number of farms		Agricultural land area	
	in 1,000	in %	in 1,000 ha	in %
below 1	1,019.70	33.25	379.70	2.20
1.01 - 4.99	1,130.30	36.87	2,851.10	16.40
5.00 - 14.99	738.50	24.09	6,349.50	36.60
15.00 - 29.99	145.40	4.74	2,859.70	16.50
30.00 - 49.99	19.80	0.65	729.70	4.20
50.00 - 99.99	6.00	0.20	403.00	2.30
100.00 - 499.99	4.60	0.14	1,078.60	6.20
500.00 - 999.99	1.40	0.04	952.00	5.50
1,000.00 and more	0.70	0.02	1,745.00	10.10
<b>Total</b>	<b>3,066.50</b>	<b>100.00</b>	<b>17,348.30</b>	<b>100.00</b>

Source: Ministry of Agriculture and Rural Development Poland

Figure 3 shows land use in Poland in 1999. Over a half of the total land area is arable land. Obviously, agriculture plays an important role in the Polish economy and is still the main source of income for the rural population. The area of agricultural land per capita is 0.5 ha and the area of arable land per capita amounts to 0.37 ha, compared with the EU av-

erage of 0.21. Further, Poland has large forests and one third of the total area is covered by woodland. Farmland occupies around 17.3 million ha of the total area in Poland and is mainly privately owned. There are more than two million small farms with less than 5 ha. Approximately one third of the agricultural land has farms in the order of 5 to 15 ha. Very few farms are larger than 1,000 ha. These farms, however, cover 10 of the agricultural land. The large farm holdings, exceeding 500 ha, are state-owned and function under co-operations.

Poland's organic farms are controlled by two organizations: the Organic

Table 2: Number of controlled organic farms in 1999

Certified by	Number of controlled farms	Area in hectares
EKOLAND	243	5,578
PTRE	312	3,837
<b>Total</b>	<b>555</b>	<b>9,415</b>

Source: Ministry of Agriculture and Rural Development Poland

# Sunflower Farm Eco Technology Center and Tourism on Farms

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## Evaluation

### Human Factors

Ms. Lopata and her son, Mr. Wietrzny, founded Sunflower Farm. Ms. Lopata is responsible for ECEAT-Poland while her son manages the Ecological Technology Center. Although both initiatives are located on the same farm, they focus on different working areas and have to be evaluated separately.

ECEAT-Poland began with nothing more than an old farmhouse and the idealistic ideas of one woman. In only a few years, it became a very successful organization that helped improve the quality of life of farmers in Poland and created a network of eco-farms. ECEAT-Poland provided technical assistance on tourism and organic farming, thus lifting the educational level of member farmers.

Ms. Lopata turned ECEAT-Poland into one of the leading eco-tourism companies in Poland. Her commitment to the project is remarkable but risky as the organization depends heavily on her skills. The company would be in serious trouble should Ms. Lopata decide to leave.

ECEAT-Poland has not been too successful in the creation of new jobs as they only employ five people. The project has, however, brought more tourists to the area. According to visitor statistics, the number of tourists spending their holidays on farms has increased.

The Ecological Technology Center was founded by Mr. Wietrzny and is still a one-man operation. It tries to promote new ideas for renewable energy generation in rural areas and may have increased the rural

population's awareness of the problem.

### Resources and Environment

ECEAT-Poland seeks, above all, to protect the natural environment. The project aims to conserve the original landscape pattern, consisting of small fields with high biodiversity, by supporting the family farm system. The promotion of organic farming also contributes to the organization's nature conservation ideas.

The Ecological Technology Center has several projects in nature resource management that focus on implementing environmentally friendly technologies to reduce energy consumption. Some of these technologies are on permanent display at the Sunflower Farm. These projects might, in the long run, have a positive impact on the environment.

### The Economic Viability

ECEAT-Poland was created without private capital and relies on outside funding. The project eventually grew and was able to generate some income but, nevertheless, remained unable to survive without financial support. Membership fees paid by farmers are low and only cover administration costs. Expenses for promotion and marketing - such as the printing of catalogues - are high and depend on outside funding. Profit made through eco-tourism goes directly to the farmers, who in turn give ECEAT-Poland 10% of their income.

The Ecological Technology Center also receives subsidies. Local donors supported the installation of the PV-panels and the construction of the low-energy house. Although the manager did not give detailed information

about the present economic situation, the project does not seem to be economically profitable. There is very little demand for the marketed environmental technologies in the Polish market and the transportation costs to other parts of Europe are enormously high.

The economic concept of the Ecological Technology Center is vague and we cannot see how it might generate income or create jobs.

### Political Factors

Sunflower Farm is a family company with Mrs. Lopata and her son at the forefront. They initiated the project and are still the driving forces behind it. Although innovative people usually have a positive impact on local development, a one-person project can easily collapse. The project is partly integrated in the local government's development plans.

The political elite in Stryszow is handling Sunflower Farm as a pilot project that they consider a successful initiative. However, Sunflower Farm does not receive any assistance from the national government or international agencies.

### The Project's Technological Potential

The Ecological Technology Center focuses on the promotion of environmentally friendly solutions such as a wastewater plant, biogas stoves, etc. The new technologies offered are environmentally friendly and designed to save energy. Their main project is a low-energy house that succeeds in presenting a reasonable alternative for farmers.

Both ECEAT-Poland and the Ecological Technology Center use the

# Sunflower Farm

## Eco Technology Center and Tourism on Farms

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Internet to promote their services and products and to expand their customer base. However, the Ecological Technology Center's Internet site is in Polish only although the manager seeks to enter other European markets. There seems to be a great potential for innovation. For instance, ECEAT-Poland could also improve its web site by including the same information as is available in their catalogue.

### Summary

Overall, ecological tourism and organic farming are positive efforts towards improving rural development in Poland. It might improve the standard of living for farmers of the region. ECEAT-Poland's philosophy of protecting the environment by introducing organic farming and eco-tourism has provided farmers with some extra income, and is a good example of the direction Polish agriculture should take.

Although the Ecological Technology Center at Sunflower Farm is promoting good and alternative technologies, the market demand for its products

is limited. We also cannot see a clear business plan than would allow the initiative to become economically viable.

ECEAT appears to have a clear potential to become a marketing organization for organic farmers in Poland. They also might develop into a successful tourist association focusing on eco-tourism. The Ecological Technology Center at the Sunflower Farm, on the other hand, seems to be more like a private hobby of its promoter.

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