



Natura 2000

Salaca river:
Nature capital for human welfare



Chances for development

Combining nature conservation interests with sustainable development is challenge for new Nature 2000 sites.

Ainazi Town and its Rural Territory (ATRT) are situated on the north-eastern shore of the Gulf of Riga, approximately 120 km to the north of Riga and 65 km from the regional centre (Limbazi). They border on to the Republic of Estonia.

THE SALACA RIVER HAS ENORMOUS NATURE HERITAGE THAT HAS BEEN LOST IN OTHER PARTS OF WESTERN EUROPE.

The total territory is 143 km², of which 22.3% is agricultural, 70.5% covered by forests, and 3.5% is port territory. There are 2,100 inhabitants, with a population density of 14.6 persons/km². The River Salaca, which is an important salmonoid river and also a prospective Natura 2000 site, flows through the territory. The river flows through 7 municipalities, thus calling for co-operation between various local stakeholders, notably in rural development

and sustainable river management.

This case study focuses on the Salaca River which is of great ecological importance, and offers opportunities for social and economic development of rural areas, notably:

- Salaca sustains the fourth largest spawning salmon population in the Baltic sea basin;
- It has significant "self-purification" capacities, providing an important eco-system service;
- There are opportunities for eco-tourism (estimated visitor numbers in 2002 were 20,000); and
- The site provides important educational opportunities.

The ATRT is located in the North Vidzeme Biosphere Reserve (NVBR). Many key initiatives in the project site are closely related to the ongoing activities in the NVBR.

Nitterjack toad. Photo: A.Soms





Photo: A.Soms
Salaca river valley at M rnieki.

Salaca river

Site Description

Salaca River flows through the Limbazi and Valmiera Districts in the north-western part of Latvia. The site covers an area of 5,323 hectares (ha), approximately 600ha of which are located within the Ainazi municipality.

Particular ecological features of the site include its picturesque 10-15m deep valley, with terraces and sandstone outcrops, and a mosaic of different forest types and extensively used farmlands. Salaca River holds the fourth biggest Wild Atlantic Salmon spawning population in the Baltic Sea area and is characterised by diverse riverine habitats, featuring a mixture of high- and low velocity river tracts. More than 300 aquatic insect species, 600 plant and fern species, 31 fish species, and 8 bat species are recorded so far. Beavers, otters and kingfishers are also common in the area, and there is also a stable population of freshwater mussels (*eg Unio crassus and Theodoxus fluviatilis*).

On-site activities include leisure outings (picnics), water sports and sport fishing. The river and its tributaries are used for student training in biological water quality testing and river restoration methods, carried out by NVBR specialists.

Site History

In 1977, the Salaca Valley was designated as a protected area - Complex Nature Reserve. It covers an area of 5,323 ha. In 1992 the Valley was included in the North Vidzeme Regional Nature Protection Complex, and later (1997) declared 'North Vidzeme Biosphere Reserve' (NVBR) under the UNESCO Man and the Biosphere Programme. In 1999, in accordance with Latvian legislation, the Salaca Valley Complex Nature Reserve was renamed the 'Salaca Valley Nature Park'. The site was designated by the national government.

According to the IBSFC (International Baltic Sea Fisheries Commission), Salaca River is nominated as the National Index River for the maintenance and monitoring of wild Atlantic salmon populations. There are several monitoring programmes carried out in the Salaca region (Migrating Fish Monitoring programme, Monitoring of hydro biological parameters within the National Monitoring Programme).

The Association of Salaca River Valley (ASRV) includes representatives from the municipalities located along the river and the non-governmental organisation "Makskernieku pasaule" (The World of Fishermen). ASRV closely co-operates with the Regional Nature Protection Board,



Lamprey (*Lampetra fluviatilis*) cages at Salacgrīva. Photo: A.Soms

which is responsible for the supervision of fish resources, and the administration of NVBR on the joint management of the Salaca River and its resources. There is some involvement of local people, notably in the form of developing a network of services along the river (e.g. nature-friendly camping). There are also local activity groups that monitor fish resources and manage certain sites along the river.

Projects on site

There are a number of important projects on or related to the site, as follows:

- Biodiversity Protection in the North Vidzeme Biosphere Reserve (UNDP GEF) - to assess the necessary nature restoration activities in Salaca.
- North Livonia - this PHARE Credo project deals with cross-border co-operation for the development of the Estonian - Latvian transboundary site. It includes nine communities and combines socio-economic and cultural aspects, as well as environmental co-operation and development. It promotes the development of sustainable tourism and related services, and seeks to overcome the feeling of "remoteness" and isolation in the area.
- Management Plan for the transboundary Wetland Complex between the Republic of

Estonia and Latvia (PIN-MATRA, The Netherlands) - the project area flanks Salaca Valley and certain activities are interlinked with activities carried out within the Valley (e.g. the development of a tourism strategy, management of private forests around the Wetland Complex).

- Northern String - dealing with the development of roads and related infrastructure, connecting 5 Latvian districts along the Latvian-Estonian border. Part of the project area is located within the Salaca Valley and will directly impact on local environmental and socio-economic conditions.

Site Context

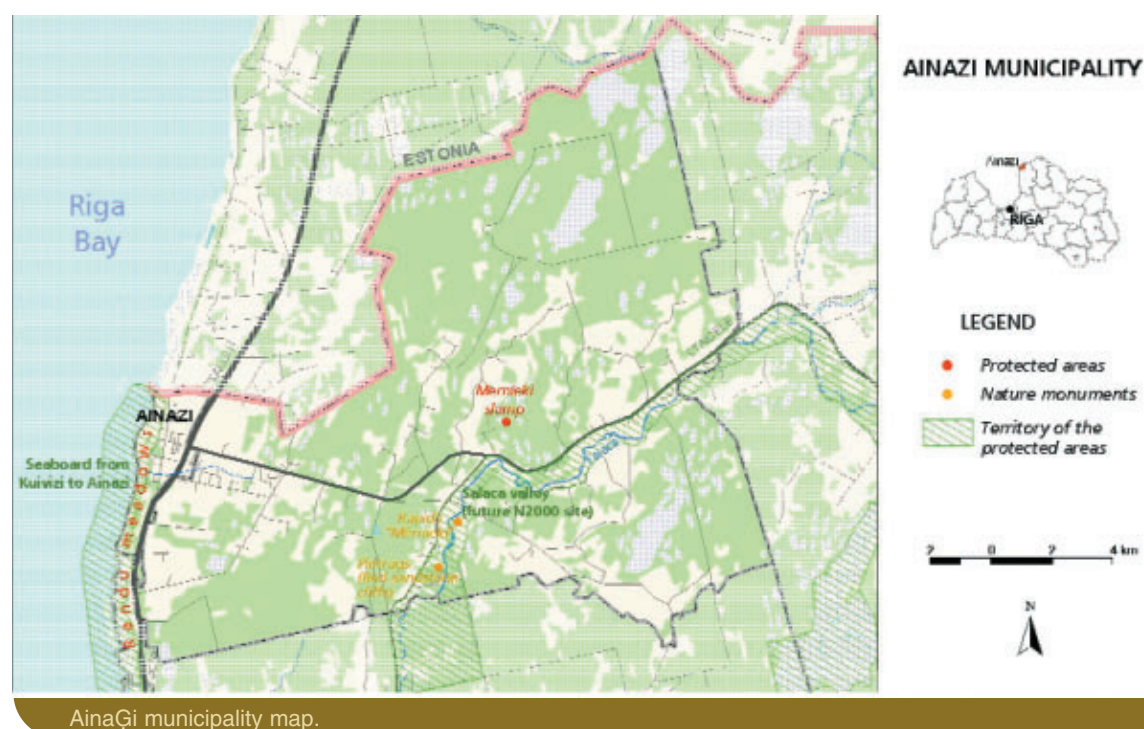
NVBR and the Salaca River are considered priority areas for the development of a nature-friendly tourism scheme, as set out in the National Rural Development Programme (2001).

Salaca plays an important link between various regional development plans, including those covering areas outside the Valley (e.g. development plan for the surroundings of Lake Burtnieks; Management of Biodiversity within the Coastal Area).

In 2002, more than 27,000 people visited 'Park Skanais Kalns' in Salaca Valley, located upstream from ATRT near Mazsalaca town. As a result (additional) revenue has been generated for local entrepreneurs, most notably those in the service sector (hostels etc). 'Park Skanais Kalns' is the most popular tourist destination in Salaca Valley. Local municipalities are hoping to divert some tourists to other parts of the valley.

The site's specific environmental resources, its relative proximity to Riga (1.5 hour drive) and its location along important transit routes (*VIA Baltica* highway), provide opportunities for developing diverse and sustainable businesses within the Valley. This socio-economic development should be guided by the administration of North Vidzeme Biosphere Reserve in close cooperation with ASRV.

THE SITE'S SPECIFIC ENVIRONMENTAL RESOURCES AND ITS LOCATION ALONG IMPORTANT TRANSIT ROUTES, PROVIDE OPPORTUNITIES FOR DEVELOPING DIVERSE AND SUSTAINABLE BUSINESSES WITHIN THE VALLEY.



Nature capital

Benefits

The area provides spawning grounds and habitats for a number of species listed under the Bern Convention and EU Habitats Directive (92/43/EEC) Appendix II. These include the Baltic Salmon (*Salmo salar*), and other fish species such as *Lampetra planeri*, *Lampetra fluviatilis*, *Rhodeus sericeus amarus*, *Cobitis taenia* and *Cottus gobio*; invertebrate species (e.g. *Unio crassus*), and mammals, such as the beaver (*Castor fiber*) and otter (*Lutra lutra*). In addition, the river valley is home to a number of bird species protected under the Bern Convention and the EU Birds Directive (79/409/EEC) Appendix I. These include *Ciconia nigra*, *Ciconia ciconia*, *Crex crex* and *Alcedo atthis*. The riverine habitats feature many aquatic organisms, such as Rhodophyta, *Unio crassus*, and *Astacus astacus*.

The river sustains some 6% of the total wild salmon population in the Baltic Sea. The International Baltic Sea Fishery Commission and the Helsinki Commission have declared it the most productive spawning river for natural salmon species in the Eastern Baltic, with an annual production of 30,000 wild salmon smolts.

Despite the discharge of domestic wastewater from Mazsalaca and Staicele town (effluents are only partially treated), a high water quality is maintained by the river. The sheer volume of water and riffle areas provide a **high water self-purification capacity**.

The main threats to the site are:

- illegal fishing of wild salmon and sea trout;
- intensive forest logging close to the site boundaries increasing possible leaching of nutrients into Salaca River;
- shrub-encroachment and associated loss of coastal meadows due to the ceasing of grazing regimes.

Recent progress in site management includes:

- Increased local awareness leading to a decrease in illegal fishing of wild salmon and sea trout.
- Participation of local stakeholders, notably involving newly established local Fishermen Clubs and volunteer groups, in river maintenance and monitoring has increased.
- Co-operation between local, national and international NGOs and local communities has prevented the construction of a hydroelectric power station (in the town of Staicele), thus saving an important salmon migration route and spawning areas.

River restoration measures have been undertaken in tributaries of the Salaca (approx. 4.4 km stretch in the River Jaunupe, and a 300m stretch in the River Korge) in order to restore salmon spawning grounds and remove excessive macrophytes growth caused by the wash out of nutrients into the river.



Photo: E.Zveja
Vimba vimba anglers at Salaca.

Benefits to the local community

Health or recreational benefits

Approximately 3,000 tourists use rafts and canoes on the River Salaca annually. It is especially popular with families due to its generally calm waters and its convenience for outings and picnics. There were 27,000 recorded visitors to Skanais Kalns Park in 2002 (near Mazsalaca town, upstream from ATRT). Salaca River is also the most important river for sports fishing of *Vimba vimba* in Latvia.

Education/Research: Training and awareness raising

NVBR manages an educational programme for children and students. This includes the provision of learning materials such as books, a web page and a film, as well as outdoor equipment for the measuring of water quality etc. In addition, there is an interactive exhibition explaining the life cycle of caddis flies (Trichoptera) and introducing visitors to the world below and above the water mark ("In the Water and in the Air"). Regular outdoor activities for different age groups, including kindergartens and schools, are also organised.

The programme is run by specialists from

NVBR who also provide their expertise to the UNESCO "Baltic Sea Project", concerned with environmental awareness raising. This project addresses amongst others more than 400 schools in the Baltic region. Furthermore, students from the University of Latvia receive annual on-site training on coastal and aquatic ecology. A parallel programme is aimed at the improvement of local conservation management skills and practical activities in training for low-cost river restoration programmes.

There is further need for capacity building regarding the development of environmentally sound businesses in the local community, and a more strategic plan for the restructuring of the local economy is required. This is particularly important in areas where the need to combine nature protection and economic development is prominent.

Volunteer activities

The local community has been involved in volunteer activities, such as the guarding of salmon spawning grounds to prevent illegal fishing and the removal of waste washed up on the banks of the river.



The results of the first wild salmon and sea trout fishing competition at Salaca in 2002
Photo: A.Strazdiņa

Economic benefits

Tourism in ATRT - an overview

Salanca River represents the main tourist attractions in the area, with most visitors attracted by fishing and boating opportunities, Ainazi beach, and two museums in Ainazi town. It is estimated that around 20,000 people visit ATRT annually, and that this number will increase by approximately 7% per year. These estimates rely on figures obtained from nearby Mazsalaca and are applied in later calculations.

There is currently no regular employment in ATRT related to site management. However, there are two people employed by ASRV on a temporary basis to provide site management services. An additional two people provide seasonal assistance, guiding fishermen during the salmon-fishing season.

The types of tourists

Most of the tourists in ATRT are day visitors. A general lack in tourist accommodation currently discourages potential long-term visitors. Moreover, many visitors who are taking advantage of the water sport facilities on the river only

pass the area in transit (e.g. rafters).

Fishermen and people visiting local museums and beach come primarily to ATRT. Based on records of foreign tourists visiting local museums, it can be estimated that 10% of tourists to ATRT are international visitors.

Main sources of tourism revenue

There is no access fee that applies to the area, however, boating and fishing licences effectively serve a similar restrictive purpose. Table 1(a,b) summarises existing and expected revenue from tourism for the years 2002 to 2006. Most of this revenue is created through purchases in local shops and the use of catering facilities in the area.

Local tourism

Local residents use the river for angling and swimming. They also engage in berry and/or mushroom picking. There are currently no products sold aimed specifically at tourists. However, there are local entrepreneurs interested in supplying tourists with fresh vegetables and other food in the future.

Passive and active scenarios for the development of tourism

Tables 1 a and b summarise two scenarios for the growth of tourism in ATRT. The first scenario illustrates 'business as usual', i.e. the tourism sector continues to grow at a rate of 7% per year, there is 5.5% growth in expenditure per tourist (in line with the expected increase of GDP in Latvia), and no new value-added services are provided.

The share of value-added in tourism-generated revenue has been indicated. This is important as an indicator for the direct contribution of tourism to the local economy. However, the value added only applies to direct providers of services and goods. As discussed later, there are multiplier effects as the money continues to circulate in the local economy. The multiplier is estimated to be 0.5, giving the total contribution of tourism as a share of the local economy (see table).

Table 1a: Summary Statistics - business as usual

	2002 (estimate)	2003 (F)	2004 (F)	2005 (F)	2006 (F)
Total employment on site	1	0	0	0	0
Site general - wardens etc	1	1	1	1	1
Project related	0	0	0	0	0
Other					
Total tourists	20,000	21,400	22,898	24,501	26,216
Local	?	?	?	?	?
National	18,000	19,260	20,608	22,051	23,594
Foreign	2,000	2,140	2,290	2,450	2,532
Site Receipts - total (LVL)	92,884	104,490	117,556	132,250	148,782
Receipts - entrance ¹	2,884	3,085	3,471	3,904	4,393
Receipts -sales	90,000	96,300	114,085	128,346	144,389
Value added for the local economy² without taking into account multiplier effects	36,200	46,389	58,002	71,280	86,213
The GRP of ATRT ³ (LVL)	2,956,000	3,119,000	3,290,000	3,471,000	3,662,000
Direct tourism revenue as a share of GRP of ATRT	3.1%	3.4%	3.6%	3.8%	4.1%
Cash outflows for inputs in the region's economy	56,684	58,101	59,554	61,042	62,569
Value added as a share of GRP of ATRT	1.2%	1.5%	1.8%	2.1%	2.4%
The total contribution of tourism as a share of the local economy (taking into account multiplier effects)	1.8%	2.25%	2.7%	3.15%	3.6%

1 EUR=0,59 LVL (Latvian lat)

¹ Under the "entrance" row the fishing and boating licenses, tickets to museums are included

² For how the value added numbers for 2002 are obtained, look at table 2. It is assumed that the amounts that the region pays for inputs in its economy, grow at 2.5% per year, therefore the value added is expected to grow faster than revenue. This expected increase is quite low. It requires the development of local food production to supply the needs of tourists, especially in the active scenario when their number grows quickly.

³ It is assumed here that the growth of Gross Regional Product (GRP) of ATRT will be in line with the baseline forecast of the GDP growth in Latvia

The second scenario predicts the growth in tourism to be 20% per year, based on the actual increase observed in Gauja National Park, and assuming an increase in expenditure per tourist at double the 'pessimistic' rate (11%). This growth could be achieved as a result of raised awareness and improved services. Table 1 b omits employment numbers because the rate of employment creation is too uncertain.

Neither of the two tables takes account of inflation, hence future revenues are presented in 2002 figures. While this reduces the nominal value of future revenues, it helps to assess their potential size in terms of today's prices.

Table 1b: Summary Statistics - active scenario

	2002 (estimate)	2003 (F)	2004 (F)	2005 (F)	2006 (F)
Total Tourists	20,000	24,000	28,800	34,560	41,472
Local	?	?	?	?	?
National	18,000	21,600	25,920	31,104	37,325
Foreign	2,000	2,400	2,880	3,546	4,147
Site Receipts - total (LVL)	92,884	121,678	159,389	208,811	273,543
Receipts - entrance ⁴	2,884	3,778	4,949	6,483	8,493
Receipts -sales	90,000	117,900	154,440	202,328	265,050
The value added for the local economy⁵ without taking into account multiplier effects	36,200	63,577	99,835	147,769	210,974
The GRP of ATRT ⁶ (LVL)	2,956,000	3,144,782	3,352,750	3,585,733	3,849,142
Direct tourism revenue as a share of GRP of ATRT	0.031%	0.039%	0.048%	0.058%	0.071%
Cash outflows for inputs in the region's economy	56,684	58,101	59,554	61,042	62,569
Value added as a share of GRP of ATRT	1.22%	2.02%	2.97%	4.12%	5.48%
The total contribution of tourism as a share of the local economy (taking into account multiplier effects)	1.83%	3.03%	4.46%	6.18%	8.22%

1 EUR=0,59 LVL (Latvian lat)

⁴ Under the "entrance" row the fishing and boating licenses, tickets to museums are included

⁵ For how the value added numbers for 2002 are obtained, look at table 2. It is assumed that amounts that the region pays for inputs in its economy, grow at 2.5% per year, therefore the value added is expected to grow faster than revenue. This expected increase is quite low. It requires the development of local food production to supply the needs of tourists, especially in the active scenario when their number grows quickly.

⁶ It is assumed in this table that the growth of Gross Regional Product (GRP) of ATRT be faster than in the first table under the impact of additional value added generated by increased tourism and multiplier effects of this revenue.

Benefits from tourism

The number of tourists

The number of tourists in ATRT can be estimated from the following data provided by Ainazi municipality and other institutions.

- the number of people visiting local museums, estimated at 10,000;
- the number of people visiting AinaĢi beach during the summer, at least 4,000;
- the number of people taking boating trips on Salaca: at least 3,000;
- the number of people buying salmon licences for the section of Salaca River passing through ATRT: 494.
- the share of people buying general licences multiplied by the ratio of salmon licences for ATRT in relation to the total number of salmon licences for River Salaca = $1989 \times 0.29 = 576$ (the share of licences sold for the stretch of river located within ATRT is 29%, the total number of salmon licences is 1989). Because the number of general permits includes daily, annual and seasonal licenses, the number of separate licensed fishing trips could be greater).

From the above data it is possible to estimate that the number of people visiting ATRT is approximately 20,000. This estimate is consistent with figures available for Skanais Kalns Park near Mazsalaca, a town located upstream from ATRT.

According to the mayor of Mazsalaca, OjĢrs BeĢeris, the number number of visitors to Skanais Kalns Park is currently increasing by about 2,000 visitors per year, which is an increase of 7%.

Similarly, visitor data is available for Gauja National Park, an area that resembles Salaca Valley. The number of visitors to Turaida castle, the main visitor attraction in Gauja National Park, is approximately 350,000 annually. The number of visitors to nearby LĒgatne is about 75,000 (entrance to Gauja National Park). The number of tourists in Gauja National Park is growing at a rate of 20% per annum. It is important to note, however, that Gauja National Park has a larger 'attraction factor' than Salaca Valley, given its greater number and diversity of destinations, its proximity to RĒga and its established reputation.

Pietrags sandstone cliffs in winter. Photo: A.Soms



Revenue

Licensing revenue

There are two types of licensed recreational activities related to Salaca River: fishing and boating. The revenues from these activities are collected by ASRV. This money is spent on developing tourism infrastructure and nature protection activities in the seven regional municipalities. Expenditure is to be spread proportionally within the region in the long term.

Boat trips

About 3,000 people annually take part in river excursions. Because ATRT features some of the best sightseeing spots in the area, it is expected that the majority of tourists pass ATRT. In 2002, a fee for boating trips was introduced. The price per person is currently 0.5 Lats (approx 0.8), giving a proportional share of ATRT in this revenue of 214 Lats⁷ (approx 355).

Fishing

Local fishing is also subject to permitting (in addition to national fishing permits). The total revenue from licences in the first half (when most of the annual revenue occurs) of 2002 was 17,859 Lats (approx 29,607). There are two types of permits: general licences that are valid for the total length of the river; and specific salmon licences limited to specific sections of the river. It is not possible to source the income from the general licences specifically to ATRT or activities taking place in ATRT. However, the income from salmon licences from ATRT is given at 2,470 Lats (approx 4094), or 29% of the total revenue from salmon licences.

Future revenue from fishing licences is expected to increase, following a rise in the number and size of areas where fishing is allowed.

⁷ 3000 tourists x 0.5/7

Revenue from catering

There are four restaurants/cafes in Ainazi town, all of which rely mostly on tourist spending. It is difficult to distinguish between money spent by genuine tourists and money spent by people passing the area en route (via Via Baltica road). There are no restaurants along the river, but there is one suitable location in Mécnieki Village (old water mill). This could be developed as a tourist spot.

Revenue from lodging activities

The hotel/hostel sector in ATRT still offers great untapped potential. Currently, there is only one place that offers tourist accommodation in the area: this is a motel integrated into the local petrol station in Ainazi town. According to the mayor of Ainazi, this motel is visited almost exclusively by transit travellers. This suggests that it is of little importance with respect to visitors to the area and hence irrelevant to this study.

According to the information provided by the lodging reservation system "Country traveller" (CT), it would be feasible to increase the number of hostels/hotels in the area to approximately four. The average prices per night would be 9 Lats (approx 15), and on average 10 Lats (approx 16.5) are spent by tourists on additional services. The average number of bookings per lodging facility in 2001 was 90. Therefore, the average revenue for a facility in Latvia could be around 5,700 Lats (approx 2835), or 22,800 Lats annually (approx 11,339) for four facilities.

Revenue from products specially produced for tourists

Judging from other successful initiatives in areas along the Salaca River, the marketing of souvenirs and local produce also holds as yet untapped economic potential for the

area. According to Andris UrtĀns, the deputy director of North Vidzeme Biosphere Reserve, there is a farmer in Staicele (a small town located upstream on Salaca) who earns about 400 Lats (approx 663) from selling fresh strawberries and vegetables for tourists. Similar entrepreneurship may be encouraged in ATRT.

Museums

There are two museums in ATRT, a fire fighters' museum and a maritime museum. The former is maintained by the municipality and employs one person. It is responsible for an annual income of approximately 200 Lats (approx 331). The maritime museum is maintained by the central government and raises approximately 2,000 Lats (approx 331) per year in revenue. It employs five people.

Total revenue from tourists

In 2000, the average spending per tourist in Latvia was 20 Lats (approx 33). However, this includes well-off business visitors and relatively affluent foreign tourists, and predominantly involves visits to Riga. The figure is, hence, not directly applicable to ATRT.

Table 2 lists the estimated total business revenue from tourists to ATRT (excluding license revenue and museum fees). Given the absence of local studies, this data is based on rough estimates only (notably for expenditure for purchases and catering). The data from this table provides input into tables 1a and 1b.

Table 2

	Revenue	Estimated value added
Catering	50,000	28,600
Purchases	40,000	7,600
Subtotal	90,000	36,200
Lodging	22,840	9,467
Total	112,840	45,667

Notes on the table
Calculations
Catering (2.5 -18% (VAT)) x 0.7 = 1.43 Ls added value
Purchases (2.0-18% (VAT)) x 0.2 = 0.328 Ls added value
Lodging (19.0-18% (VAT)) x 0.5 = 7.79 Ls added value

For catering and purchases the estimated current number of tourists (20,000) is used, for lodging it is assumed that 4 countryside-lodging facilities could be created and these could provide the average number of bed-nights per such facility in Latvia (300)

Direct benefits from funding

There are two measures under the EU SAPARD fund (Special Accession Programme for Agriculture and Rural Development) that present an opportunity for the ATRT from the point of view of sustainable development. These are "Organic Agriculture" and "The preservation of biological diversity and rural scenery". The applications for funding under these measures will start in 2002. Until now SAPARD has mostly been directed towards the purchase of agricultural equipment for intensive, large-scale farming.

Multipliers

An estimated 50% of tourism revenue stays within the region. Therefore, the region benefits from the 'multiplier effect' as the revenue circulates within the local economy, benefiting a number of stakeholders.

Employment benefits

Employment in ATRT is currently mostly dependent on tourist purchases in local shops and catering facilities, and to a lesser extent on the seasonal provision of guidance to anglers. Additional economic potential may be present in the development of lodging services.

According to a survey carried out by ASRV among local residents, 99% of the inhabitants living along the river are willing to supply various goods to tourists. This should be encouraged by supporting local entrepreneurship and promoting local produce to tourist.

Direct employment benefits on site

The only person in ATRT whose employment is directly linked to nature protection is the local forest warden. However, his employment is not in any way related to tourism and is funded by the central authorities. There are also two people employed on a piece-rate basis at one of the three campsites in ATRT. There are plans to create an additional two permanent posts. According to Mr Birkovs, there is further need for an environmental inspector to carry out patrols along the river with an aim to prevent illegal fishing, hooliganism and polluting activities.

Off-site employment directly linked to site

Additional resources are needed to support nature guides for nature excursions for non-specialists. It is assumed, for the purposes of this study, that the site could provide at least 1 full time equivalent (FTE) job for environmental guides in ATRT. This is realistic, given the level of tourist activity. However, the division of FTE jobs among territories along Salaca probably would not be very meaningful because these activities

would not be confined only to ATRT or some other municipal territory. At the moment, according to A. UrtČns, guiding activities are organized by North Vidzeme Biosphere Reserve, but on an irregular basis (there are three people that perform this task occasionally). There are two local people engaged in acting as fishing guides on an informal basis. The current pay rate for this activity is 10 Lats per day. It is planned that there will be 5 such people along Salaca in the future. 29% of licensed salmon fishing took place in ATRT, therefore we can assume that there will be 1.45 FTE positions for the period from the end of February until the middle of May (roughly 3 months) which gives 0.39 FTE (full time equivalent) jobs.

According to 'Country Traveller', there is one full time staff position created per every six beds in a country tourism facility⁸. Because there are on average 3.9 beds in each facility, roughly 0.65 FTE jobs exist in each. If we assume that there could be 4 average size facilities in ATRT, there is the potential to create 2.65 additional FTE jobs in ATRT through the development of country tourism.

The current number of jobs supported by tourists and transit travellers in Ainazi is approximately 11.

According to O. Zvejnieks, the total number of persons working in catering facilities in Ainazi is 20. Therefore the number of jobs in AinaĢi attributable to catering expenditure by tourists and transit travellers could be at least 10, because most of catering revenue is derived from non-locals. The number of jobs in local shops is approximately 20, and the share of turnover attributed to non-locals is around 5%.

Therefore, one can assume that 1 job in local shops exists as a result of tourists and other travellers. Unfortunately, it is

⁸ Country tourism facility in this document refers generically to a farmer's house used for hosting tourists or a small building specially constructed for this purpose

impossible to separate tourists and transit travellers in this case.

Indirect Employment benefits

Table 3 presents the estimated number of current and potential additional project and tourism related FTE jobs in ATRT, assuming that the number of visitors stays constant.

It is difficult to estimate how the development of tourism will impact on employment in the various sectors. The impact largely depends on whether developments involve capital-intensive measures, such as the construction of supermarkets, or labour intensive measures. It is expected that growth in tourism related employment will roughly match increases in the share of tourism in Gross Regional Product (GRP) (refer also to Table 1 a) and b)). The optimistic scenario predicts that contributions from tourism to the GRP of Ainazi could reach as much as 8.2%. This corresponds to 100 jobs existing as a result of tourism, assuming that the overall employment stays the same as in 2001 (see below).

Employment context in the region

The level of unemployment in ATRT is currently 3.49%, according to official statistics. This is low compared to the national average of 8%. However, registered levels of unemployment in Latvia do not reflect actual levels. The total level of national unemployment, according to the ILO definition is 13.8%, or 1.72 times the officially recorded number.

Correspondingly, 'true' levels of unemployment in ATRT are more likely to reach 6%. The number of economically active inhabitants in ATRT in 2001 was 1292. The actual number of people unemployed might therefore be about 77. The level of unemployment has fallen sharply since 1999. The previously high

Table 3

Positions	Estimated current FTEs	Estimated potential FTEs
Environmental inspector	0	1
Tourist guide	0	1
Fishing guides	0	0,4
Environmental PR	0	1
Lodging facilities	0	2,7
Additional catering facility in Mćrnieki	0	4
Plus existing		
Tourism related jobs	11	11
Total	11	21,0
Multiplier effect (+ 0.5)	+ 5,5	10,5
Total jobs + multiplier effect	16,5	31,6
Share of total actual employment in ATRT	1,4%	2,6%

levels of unemployment had resulted from the Russian economic crisis, which notably affected the regional fishing sector.

Unemployment was then at 14.7%.

Diversification of the local economy, for example through the development of tourism, can help to decrease the economic vulnerability of local economies to external factors.

The size of the local economy

To evaluate the importance of tourism revenue for ATRT, it is useful to know the total value added by the local economy or Gross Regional Product (GRP). There is no data available for regional GRP in Latvia, but the size of personal income tax revenues can be used as a proxy. In 2001 the personal income tax revenues in Ainazi were 74% of the average for Latvia. The GDP per capita in 2002 in Latvia was 2007 Lats (approx 3,327); for Ainazi it was around 1458 Lats (approx 2,417). Accordingly, the GRP for Ainazi in 2001 was around 2,802,233 Lats (approx 645,611). This data was used in tables 1a and 1b, which indicate the overall current and potential impact of tourism on the local economy.

Contribution to Sustainable Development

The Salaca River has enormous nature heritage that has been lost in other parts of Western Europe. The Salaca River offers various other benefits to the local community from tourism, for example hiking, biking, boating etc. So far these opportunities are just partly used.

The main economic developments in the future could be linked with tourism services and infrastructure development, offering various travel packages (fishing, hunting, lodging services, guiding activities). The development of tourism in ATRT could diversify employment opportunities in Ainazi, as well as provide significant additional income to local businesses. Cross border co-operation with Estonia in tourism could be one of the key points.

Long-term benefits should be linked with the sustainable use of the nature resources (fishing, logging etc.) as well as development of the tourism services and infrastructure.

The way forward

Promotional campaigns for Natura 2000 and its benefits should help to address possible local misperceptions that may otherwise inhibit development, and encourage future initiatives. Capacity building of local inhabitants and local authorities should be seen as an asset for sustainable development of the area.

Special attention should be paid to promoting environmentally friendly businesses and activities, which could be an attraction for local and international tourists. Small grants should be provided to launch local environmentally friendly businesses and conservation activities. Cooperation among the local municipalities should be further improved, thus helping to create a common vision for the future development of the area, as well as attracting finance for the local nature conservation activities and businesses.

In cooperation with the North Vidzeme Biosphere Reserve, training in nature conservation should be offered to local fishermen, forest owners and farmers to ensure appropriate stewardship of natural resources. Consultation with, and participation of, stakeholders and municipalities is needed for river management.

Local municipalities should search, with assistance from governmental authorities, for "twinning" opportunities with municipalities in neighbouring Estonia, to promote international exposure of the area.



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